

Via Hand Delivery

March 1, 2004

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

RE: <u>Boston Edison Company d/b/a/ NSTAR Electric</u>, D.T.E. 04-15

Dear Ms. Cottrell:

Enclosed please find the Annual Service Quality Report (the "SQ Report") for Boston Edison Company d/b/a/ NSTAR Electric Company ("Boston Edison" or the "Company"). The SQ Report sets forth the Company's performance results for the year ending December 31, 2003, under the service quality plan (the "SQ Plan") that was approved for the Company by the Department of Telecommunications and Energy (the "Department") on December 5, 2001.

In 2003, the Company met or exceeded all of the established performance benchmarks, and therefore, ended the year in a net offset position. NSTAR Electric looks forward to continued success in 2004.

Should you have any questions or need additional information, please do not hesitate to contact me. Any communications should also be directed to:

Cheryl M. Kimball John K. Habib Keegan, Werlin & Pabian, LLP 265 Franklin Street Boston, MA 02110 TEL: (617) 951-1400 Letter to Mary Cottrell D.T.E. 04-15 Boston Edison Company March 1, 2004 Page 2 of 2

Thank you for your time and attention to this matter.

Sincerely,

Mark Reed, Esq.

Director of Government Affairs

man & Reed

(781) 441-3776

Enclosures

cc: Caroline Bulger, Esq.

Jody Stiefel, Esq.

Joseph Rogers, Assistant Attorney General

Annual Service Quality Report

SECTION ONE

Year Ending December 31, 2003

DTE FORM - B



FORM B (Electric Companies)

Boston Edison Company

PENALTY PROVISIONS	Years in Database	Mean and Benchmark	Performance in 2003	Comments
PENALTI PROVISIONS	Database	Delicilliark	2003	Comments
Telephone Answering Factor (%)	8	64.71% (+/- 11.57%)		Telephone statistic based on Calls Handled within 20 Seconds.
Emergency Answering (%)	1	NA	76.73%	Tracking emergency calls started in 2002.
Non-Emergency Answering (%)	1	NA	76.72%	Tracking non-emergency calls started in 2002.
Service Appointments Kept (%)	1	NA	86.36%	Tracking service appointments started in 2002.
Meter Reads (%)	7	90.51% (+/- 4.59%)	94.08%	
Consumer Division Cases (Cases/1000 customers)	10	1.540 (+/- 0.400)	1.211	
Bill Adjustments (\$/1000 customers)	10	\$224.29 (+/- \$77.49)		
SAIFI	5	1.105 (+/- 0.160)		Exclusions based on events affecting 15% of service areas under historical methodology.
SAIDI	5	107.00 (+/- 23.08)		Exclusions based on events affecting 15% of service areas under historical methodology.
Lost Time Accident Rate (# of acc/200,000 employee hours worked)	10	0.92 (+/- 0.25)	1.02	

FORM B (Electric Companies)

Boston Edison Company

ADDITIONAL REPORTING	Years in Database	Mean and Benchmark	Performance in 2003	Comments
Staffing Levels	7	Union 1693 Management 681	Union 2232 Management 855	
Restricted Work Day Rate (# of acc/200,000 employee hours worked)	10	3.65	2.71	
Property Damage > \$50K (#)	2	NA	5	
Line Loss	10	6.3%		Performance in 2003 is estimated pending filing of FERC FORM 1.
Capital Expenditures (# of projects and total \$)	10	\$125,283,203	317 \$201,015,160	
Spare Component & Inventory Policy	NA	NA	NA	
Customer Surveys (scale 1-7):				
Random (Overall Customer Satisfaction Survey)	2	NA	81.1%	
Callers (Post-Transaction Survey)	2	NA	83.5%	
Customer Service Guarantees (#; total \$)				
# of Payouts	2	NA	3	
\$ of Payouts	2	NA	\$75	

Annual Service Quality Plan Performance Report SECTION TWO

Year Ending December 31, 2003

Historical Performance Data



SECTION 2

Boston Edison Company Performance Review for Year Ending December 31, 2003

I. Introduction

On December 5, 2001, the Department of Telecommunications and Energy (the "Department") approved a Service Quality Plan (the "SQ Plan") for Boston Edison Company d/b/a/ NSTAR Electric ("Boston Edison," or the "Company"). In accordance with the terms of the SQ Plan, Boston Edison filed its first annual service-quality report on March 1, 2002. That filing established the benchmarks (using data through 2001) against which performance in the 2002 calendar-year period would be measured. In this section (Section 2) of the filing, the Company reviews: (1) the historical data underlying those benchmarks; (2) the performance results for 2003; and (3) the comparison of 2003 performance results to the established benchmarks. Items (2) and (3) are provided in this section at Schedule 1, at page 1. Item (1) is provided in Schedule 1, at page 2.

In <u>Section 3</u> of this filing, the Company has provided documentation for the reliability and safety requirements that are subject to the reporting requirements of the SQ Plan.

Also in Section 3, the Company has provided updated historical performance data through December 31, 2003. Based on this data, the Company has calculated the benchmarks that will be applied to evaluate 2004 performance data in next year's filing. In that regard, the Company has recalculated benchmarks for three measures for which there was less than the requisite level of data as of December 31, 2001. For these three measures, the benchmarks applied next year are calculated using data through December 31, 2003. As provided by the SQ Plan, benchmarks that were calculated using the requisite level of data as of December 31, 2001, are fixed for the period of the SQ Plan. The fixed and updated benchmarks for 2004 are set forth in Appendix 12.

Specifically Section 3 contains the following:

- Appendix 1: Customer Surveys
- Appendix 2: Customer Average Interruption Duration Index
- Appendix 3: Restricted Work Day Data
- Appendix 4: Annual Line Loss Data
- Appendix 5: Damage to Company Property In Excess of \$50,000
- Appendix 6: Excludable Major Events
- Appendix 7: Tree Trimming Policy

- Appendix 8: Capital Expenditures
- Appendix 9: Spare Component and Acquisition Inventory Policy
- Appendix 10: Poor Performing Circuits
- Appendix 11: Staffing Levels
- Appendix 12: Updated Historical Data and Calculation of Benchmarks for 2004 Performance

II. Performance Review for Year Ending December 31, 2003

A. <u>Customer Service and Billing Performance Measures</u>

1. <u>Telephone Service Factor</u>

For the Telephone Service Factor, the Company is required to track and report data on the percentage of telephone calls from customers that are handled within a 20-second time interval, including both emergency and non-emergency calls. Boston Edison began collecting data based on the percentage of calls answered within 20 seconds in 1995. Based on available data through 2002, the Company's benchmark for this measure is 64.71 percent. In 2003, the Company handled 76.72 percent of calls within 20 seconds, which generated an offset for the Company.

Because the 2003 performance benchmark calculated for the Telephone Service Factor was based on less than 10 years of historical data, the Company has updated this benchmark to include 2003 performance. As shown in Appendix 12, the benchmark against which 2004 performance will be measured has increased from 64.71 percent to 66.05 percent.

2. Service Appointments Met as Scheduled

As of January 1, 2002, the Company instituted a system to compile statistics on the percentage of service appointments met by Company personnel, excluding appointments missed by the customer. A "service appointment" is defined as a mutually agreed upon arrangement for service between the customer and the Company where the arrangement specifies the date for the Company's personnel to perform a service activity that requires the presence of the customer at the time of the service. The Company will continue to update the data annually in accordance with the Department's guidelines, and will establish the benchmark when three years of data become available. As detailed in Appendix 12, the Company met 86.36 percent of its service appointments as scheduled in 2003.

3. <u>On-Cycle Meter Readings</u>

Boston Edison is required to report on the percentage of meters that are actually read by the Company in accordance with the meter-reading cycle. Based on available data through 2002, the Company's benchmark for this measure is 90.51 percent. In 2003,

the Company achieved 94.08 percent of on-cycle meter reads, which is within one standard deviation of the benchmark.

Because the 2003 performance benchmark calculated for On-Cycle Meter Readings was based on less than 10 years of historical data, the Company has updated this benchmark to include 2003 performance. As shown in Appendix 12, the benchmark against which 2004 performance will be measured has increased from 90.51 percent to 90.96 percent.

B. Customer Satisfaction Performance Measures

1. <u>Consumer Division Cases</u>

The Company is required to measure its performance in relation to the number of customer-complaint cases filed with the Department's Consumer Division. Based on the 10 years of data provided to the Company, the performance benchmark shown on Schedule 1 is 1.540, which will remain fixed for the duration of the service-quality plan. In 2003, the number of Consumer Division cases was 1.211, which is within one standard deviation of the benchmark.

2. Billing Adjustments

The Company is required to measure its performance in relation to the amount of revenue adjustments that result from the Department's intervention in a billing dispute with a residential customer. This is based on data that is compiled and reported by the Department and then provided to the Company. Based on the 10 years of data provided to the Company, the performance benchmark shown on Schedule 1 is 224.29, which will remain fixed for the duration of the SQ Plan. In 2003, the number of Billing Adjustments was 125.80, which generated an offset for the Company.

C. Safety and Reliability Performance Measures

1. <u>System Average Interruption Duration Index ("SAIDI") and</u> System Average Interruption Frequency ("SAIFI")

The SQ Plan requires the Company to track and report SAIDI/SAIFI statistics and to base the benchmark for this measure on the most recent five years of data. Under the SQ Plan, SAIDI and SAIFI are calculated with the exclusion of "Excludable Major Events." One criterion for an Excludable Major Event is that it be an unplanned interruption of service to 15 percent or more of the Company's customers in an "operating area." The Department has defined "operating area" to mean the Company's entire service territory. The Company's historical SAIDI/SAIFI statistics are based on the exclusion of major events defined as events that affected a significant number of customers on a service-area basis (rather than a company-wide basis). As stated to the Department in relation to last year's filing, Boston Edison does not have data available on the events that were excluded prior to 2000 under the old definition. Therefore, the Company's historical data cannot be recalculated consistent with the Department's new

terminology for the purpose of establishing a performance benchmark at this point in time

Schedule 1 shows the SAIDI/SAIFI performance benchmarks that were fixed for the duration of the SQ Plan based on the most recent five-years of historical data (1997-2001), excluding major events as defined on the historical "service-area" basis. The Company is also tracking SAIDI/SAIFI performance to be consistent with the Department's new definition until the commencement of a new SQ Plan.¹

As shown in Schedule 1, the SAIDI benchmark is 107.00 and the SAIFI benchmark is 1.105. In 2003, the Company performance statistics were 67.44 for SAIDI and 0.961 for SAIFI, generating an offset for SAIDI and performance within one standard deviation of the benchmark for SAIFI.

2. Lost-Work Time Accident Rate

2

The SQ Plan requires the Company to report on the Incidence Rate of Lost Work Time Injuries and Illness per 200,000 Employee Hours, as defined by the U.S. Department of Labor Bureau of Labor Statistics. This data is compiled and reported annually to the U.S. Department of Labor Bureau of Labor Statistics and the Company has 10 years of available data for this measure. Based on that data, the performance benchmark for this measure is 0.92. In 2003, the number of Lost Work Time Accidents was 1.02, which is within one standard deviation of the benchmark.²

For informational purposes, the Company has calculated the SAIDI/SAIFI performance statistics for 2000 through 2003 using the definition of "operating area," which includes the major events that are excluded from the SAIDI/SAIFI historical statistics set forth in Schedule 1. This recalculation is as follows:

 Performance Measure
 2000
 2001
 2002
 2003

 SAIDI
 106.97
 163.89
 86.87
 67.44

 SAIFI
 1.221
 1.560
 1.157
 .961

On January 1, 2002, the U.S. Department of Labor, Occupational Safety and Health Administration ("OSHA"), revised the regulations concerning the recording and reporting requirements for occupational injuries and illnesses. See 29 CFR § 1904.7. Specifically, the revised regulations require the Company to include the number of calendar days that an employee was unable to work as a result of injury, regardless of whether or not the employee was scheduled to work on those days (29 CFR § 1904.7(iv)). The Company's performance benchmark for Lost-Work Time Accident Rate, which is based on ten years of historical information, excludes weekends, holidays or other days that an employee would not normally have reported to work. Since the effective date of OSHA's revised regulations, the Company has maintained a log of occupational injuries or illnesses consistent with the new regulations. However, for purposes of the annual service-quality report (the "SQ Report"), the Company has tracked and reported its performance consistent with the prior version of the regulation so that the performance data will match the historical data composing the performance benchmark. The Department approved the Company's 2002 SQ Report using this methodology. See 2002 Service Quality Reports for Electric Distribution and Local Gas Distribution Companies, D.T.E. 03-10 through D.T.E. 03-23 (2003).

Schedule 1 Page 1 of 2

BOSTON EDISON COMPANY SERVICE QUALITY STANDARDS

	Required	No. of			Penalty /			Resu	Its - 2003	
Measures Customer Service and Billing	Years <u>History</u>	Years <u>Used</u>	Historical Average(1)	Std Dev	Offset Weight	Max (3) <u>Amount</u>	Observ.	<u>Variance</u>	No. of Std Devs	Penalty / (Offset)
% Calls Answered (2)	10	8	64.71%	11.57%	12.5% \$	1.565.643	76.72%	12.01%	1.0380 \$	(421,723)
% Services Appointments Met	10	1	NA	NA	12.5%	1,565,643	86.36%	NA	NA	NA NA
% On-Cycle Meter Reads	10	7	90.51%	4.59%	10.0%	1,252,515	94.08%	3.57%	0.7778	0
Safety and Reliability										
Lost Work Day Accidents	10	10	0.92	0.25	10.0%	1,252,515	1.02	0.10	0.4000	0
SAIDI - 5 yrs (4)	5	5	107.00	23.08	22.5%	2,818,158	67.44	-39.56	-1.7140	(2,069,793)
SAIFI - 5 yrs (4)	5	5	1.105	0.160	22.5%	2,818,158	0.961	-0.144	-0.9000	0
Consumer Division Statistics										
Consumer Division Cases	10	10	1.540	0.400	5.0%	626,257	1.211	-0.329	-0.8225	0
Billing Adjustments	10	10	224.29	77.49	5.0%	626,257	125.80	-98.49	-1.2710	(252,920)
Total					100.0% \$	12,525,145			\$	(2,744,437)

Notes

- (1) Telephone statistic based on Calls Handled within 20 Seconds; includes abandoned calls.

- (2) Max penalty is incurred at 2 sd from average
 (3) Exclusions based on events affecting 15% of service areas under historical methodology.
 (4) Two percent of total T&D revenue in 2003.
 Less: Service Guarantee Payout \$12,525,220 Maximum Penalty / (Offset) \$12,525,145

BOSTON EDISON COMPANY

				ŀ	listory (1)											
Measures	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1988	Sample	Average	Std Dev
Customer Service and Billing																
% Calls Answered (1)	76.04%	57.11%	56.68%	69.20%	72.74%	79.98%	46.16%	59.78%						8	64.71%	11.57%
% Services Appointments Met	88.30%													1	NA	NA
% On-Cycle Meter Reads	92.92%	83.49%	94.81%	94.73%	92.46%	90.23%	84.92%							7	90.51%	4.59%
Safety and Reliability																
Lost Work Day Accidents		0.76	0.96	0.73	0.50	0.77	0.98	1.37	1.10	0.87	1.16			10	0.92	0.25
SAIDI - 5 yrs		146.77	100.33	101.21	86.31	100.4								5	107.00	23.08
SAIFI - 5 yrs		1.330	1.171	1.060	0.896	1.070								5	1.105	0.160
Consumer Division Statistics																
Consumer Division Cases		2.292	0.996	1.087	1.097	1.776	1.523	1.478	1.608	1.742	1.803			10	1.540	0.400
Billing Adjustments		114.75	123.80	206.88	266.33	255.71	169.44	342.21	304.48	282.04	177.26			10	224.29	77.49

Notes

(1) 12 Month period January to December.

Annual Service Quality Report SECTION THREE

Year Ending December 31, 2003

Back-up Data and Supporting Schedules



SECTION 3

I. Non-Penalty Related Service Quality Information

Section VIII of the SQ Plan sets forth a number of non-penalty related reporting requirements for the Company's annual service-quality filings. These reports are as follows:

Appendix 1: Customer Surveys

Pursuant to section III.C of the SQ Plan, Boston Edison conducted an annual survey of (1) overall customer satisfaction as indicated by a statistically representative sample of residential customers, and (2) post-transaction customer satisfaction as indicated by a sample of randomly selected customers who have contacted the Company's customer-service department during the year. The surveys were conducted by Research International, which is an independent research firm with significant experience in conducting customer satisfaction surveys. The results of these surveys are presented in Appendix 1.

Appendix 2: Customer Average Interruption Duration Index ("CAIDI")

The CAIDI performance statistics for the ten most recent years ending December 31, 2003 are provided in Appendix 2. Historically, the Company's CAIDI performance statistics have been calculated on the same basis as SAIDI and SAIFI. As a result, the CAIDI performance statistics for Boston Edison are based on a calculation that excludes major events that occur on a service-area basis (rather than a company-wide basis), as discussed above in relation to the SAIDI/SAIFI benchmarks.¹

In addition, it should be noted that, under the provisions of the SQ Plan, when customers lose power as a result of the process of restoring, the duration of these additional outages is included in SAIDI, but the additional number of interruptions is excluded from the calculation of SAIFI. See, Section V(I). Further, under Section I(B), CAIDI is calculated as SAIDI divided by SAIFI. A consequence of this construction is that, in calculating CAIDI, the numerator and the denominator are not representing the same outages, i.e., there are outages that are included in the numerator, but not in the denominator. To be consistent with industry practice, the numerator and the denominator of the CAIDI calculation should represent the same outages.²

Appendix 3: Restricted Work Day Rate

For informational purposes, the Company has recalculated the CAIDI performance statistics since 2000 using the new definition of "operating area," which includes the major events that are excluded from the SAIDI/SAIFI historical statistics set forth in Schedule 1. This calculation is as follows:

Performance Measure	2000	2001	2002	2003
CAIDI	87.60	105.10	75.10	70.17

The Company's CAIDI statistic for 2003 would be 54.98 with the outages associated with power restoration excluded from SAIDI.

The Restricted Work Day Rate is the Incidence Rate of Restricted Work Cases Per 200,000 Employee Hours, as defined by the U.S. Department of Labor, Bureau of Labor Statistics. This information is provided for the most recent ten years in Appendix 3.

Appendix 4: Electric Distribution Line Loss

Pursuant to section VIII.A of the SQ Plan, the Company is required to report electric distribution line loss on an annual basis. For 2003, this information is provided in Appendix 4. The annual line loss value for electric companies is the net result of reconciling the total sources of power to the amount of electricity supplied to customers, plus company use. The derivation of the calculation is set forth on page 401a of the Company's annual FERC Form 1.

Appendix 5: Damage to Company Property In Excess of \$50,000

Pursuant to section VIII.A of the SQ Plan, the Company is required to provide an annual report of property-damage incidents involving property damage to Company-owned facilities exceeding \$50,000 per incident. For 2003, this information is provided in Appendix 5..

Appendix 6: Excludable Major Events

Pursuant to section VIII.D of the SQ Plan, Boston Edison is required to identify and report on an annual basis the outages that are considered Excludable Major Events in the calculation of SAIDI/SAIFI statistics. For 2003, this information is provided for Boston Edison in Appendix 6.

Appendix 7: Tree Trimming Policy

The Company's Tree-Trimming Policy is provided as Appendix 7.

Appendix 8: Capital Expenditures

The Company's data on capital expenditures for the ten most recent years (1994 through 2003) is provided in Appendix 8.

Appendix 9: Spare Component and Acquisition Inventory Policy

Pursuant to section VIII.F of the SQ Plan, Boston Edison is required to report on an annual basis its policy for identifying, acquiring, and stocking critical spare components for its distribution and transmission system. The Spare Component and Acquisition Inventory Policy is provided as Appendix 9.

Appendix 10: Poor Performing Circuits

Pursuant to section VIII.G of the SQ Plan, Boston Edison is required to identify and report on an annual basis its poor performing circuits. For 2003, the Company's information is provided as Appendix 10. Poor performing circuits are any distribution feeder that:

- (a) has sustained a circuit SAIDI or SAIFI value for a reporting year that is among the highest (worst) ten percent of that utility's feeders for any two consecutive reporting years; or
- (b) has sustained a circuit SAIDI or SAIFI value for a reporting year that is more than 300 percent greater than the system average of all feeders in any two consecutive reporting years.

Appendix 11: Staffing Levels

Staffing level information for the Company is provided in Appendix 11.

Appendix 12: Performance Benchmarks for 2004

In Appendix 12, the Company has updated historical data to include 2003 performance data in the calculation of benchmarks for the 2004 reporting period, where the benchmarks were not fixed for the duration of the SQ Plan.

II. Customer Service Guarantees

Pursuant to section XI of the SQ Plan, Boston Edison is required to provide information as to the customer payments credited as a result of the customer-service guarantee program during the service-measurement period. As indicated in the SQ Plan, Boston Edison credits the customer's account by \$25.00 if a meter reading is inaccurate, if the Company knowingly fails to inform a customer that it will be more than 30 minutes late for a service appointment, if there is an error in the direct payment or pay-by-phone billing systems, if the Company fails to inform a customer of a scheduled service interruption, or if the Company does not respond to a billing question by the next business day. In addition, if a new residential service line is not connected by the agreed date (after all permits are received), the first month's bill is free (minimum \$25, maximum \$100). In 2003, Boston Edison remitted to customers a total of \$75.00under its Customer-Service Guarantee program.

III. Conclusion

As set forth above, this filing establishes the performance benchmarks for service-quality measures subject to the penalty mechanism based on historical data available through December 31, 2003. On March 1, 2005, Boston Edison will make its annual filing, which will compare the Company's performance in 2004 to the benchmarks established in this filing. The Company's March 2005 filing will also include documentation to satisfy all other reporting requirements set forth in the approved SQ Plan.

Customer Surveys

Year Ending December 31, 2003



RESEARCH INTERNATIONAL



MEMO

TO NSTAR

FROM Research International

DATE February 10, 2004

RE: Residential customer satisfaction metrics (former BECO service area)

The following results are from a representative sample of 700 NSTAR residential customers. Of the 700 surveys, 550 were with NSTAR Electric residential customers (300 in the former Boston Edison service area, and 250 in the former COM/Electric service area) and 150 with NSTAR Gas residential customers.

Respondents were asked to evaluate their satisfaction with the service they are receiving from NSTAR Electric using a 7-point scale, where a rating of "7" means "very satisfied." The data from NSTAR Electric customers are weighted to reflect the true proportion of former Boston Edison customers to former COM/Electric customers. "Don't know" responses are excluded from the analysis.

• Eight in ten (81.1%), or 240 of 296 NSTAR Electric customers living in the former Boston Edison service area rate positively their overall satisfaction with NSTAR (5 or higher on 7-point scale).

The raw numbers in terms of actual customer responses to the 7-point scale in 2003 are as follows:

Response codes	"1"	"2"	"3"	"4"	"5"	"6"	"7"	"DK"
Responses	13	2	13	28	58	60	122	4

The associated margin of error for the sample of 300 surveys is +/-5.7 percentage points at the midpoint of the 95% confidence level.

Jeff Banks
Senior Vice President
Research International/Cambridge
617.661.0110
955 Massachusetts Avenue
Cambridge, MA 02139

RESEARCH INTERNATIONAL



MEMO

TO NSTAR

FROM Research International

DATE February 10, 2004

RE: Post-transaction residential customer satisfaction metrics (former BECO service area)

The following results are from a representative sample of 900 NSTAR residential customers who recently contacted NSTAR for service. Of the 900 surveys, 699 were with NSTAR Electric residential customers (443 in the former Boston Edison service area, and 256 in the former COM/Electric service area) and 201 with NSTAR Gas residential customers.

Respondents were asked to think about the most recent time they called NSTAR and to evaluate their overall satisfaction with the service they received from the customer service department of NSTAR using a 7-point scale, where a rating of "7" means "very satisfied." "Don't know" responses are excluded from the analysis.

• Eight in ten (83.5%), or 360 of 431 NSTAR Electric customers living in the former Boston Edison service area rate positively their overall satisfaction with NSTAR's customer service (5 or higher on 7-point scale).

The raw numbers in terms of actual customer responses to the 7-point scale in 2003 are as follows:

Response codes	"1"	"2"	"3"	"4"	"5"	"6"	"7"	"DK"
Responses	30	10	9	22	52	80	228	12

The associated margin of error for the overall sample of 443 surveys is +/-4.7 percentage points at the midpoint of the 95% confidence level.

Jeff Banks
Senior Vice President
Research International/Cambridge
617.661.0110
955 Massachusetts Avenue
Cambridge, MA 02139

Customer Average Interruption Duration Index

CAIDI

Year Ending December 31, 2003



Boston Edison Company SQ Plan Historical Data

<u>Year</u>	<u>SAIFI</u>	<u>CAIDI</u>	<u>SAIDI</u>
1994	1.250	113.21	141.50
1995	1.090	107.90	117.60
1996	1.070	111.58	119.40
1997	1.070	93.80	100.40
1998	0.896	96.38	86.31
1999	1.060	95.50	101.21
2000	1.171	85.66	100.33
2001	1.330	110.39	146.77
2002	1.117	74.66	83.38
2003	0.961	70.17	67.44

Excludes outages affecting greater than 15% of service area.

Restricted Work Day Data

Year Ending December 31, 2003



Injury Statistics

Restricted Duty Cases

Boston Edison Company

	Hrs. Wkd.	# of Cases	Rate
1994	6,698,998	147	4.39
1995	6,153,188	154	5.01
1996	5,490,958	131	4.77
1997	9,212,802	107	2.32
1998	4,825,143	85	3.52
1999	4,902,764	91	3.71
2000	3,947,311	65	3.29
2001	4,224,811	84	3.98
2002	4,849,182	69	2.83
2003	4,586,340	62	2.71
		Mean	3.65

Incident Rate = Number of Cases x 200,000/Hours Worked

Annual Line Loss Data

Year Ending December 31, 2003



Annual Line Loss Data Boston Edison Company					
1994	6.0%				
1995	5.8%				
1996	5.7%				
1997	5.7%				
1998	5.7%				
1999	6.6%				
2000	6.3%				
2001	7.0%				
2002	7.0%				
2003 **	7.5%				

^{**} Subject to finalization of FERC FORM1 1 and DTE Annual Report for year-end 2003.

Damage to Company Property

Year Ending December 31, 2003



Damage to Company Property in Excess of \$50,000

• 5 Incidents

- 1. Damage due to dig up of underground electric lines: Mystic Street, Winchester.
- 2. Damage due to dig up of underground electric lines: Beacon Street, Brighton.
- 3. Damage due to dig up of underground electric lines: Blossom Street, Boston.
- 4. Damage due to dig up of underground electric lines: Lexington Street, Waltham.
- 5. Damage due to dig up of underground electric lines: Longwood Avenue, Roxbury.

Excludable Major Events

Year Ending December 31, 2003



2003 Major Outage Events

Boston Edison Company

Excludable Major Events considered in the calculation of SAIDI / SAIFI for 2003.

• None

Tree Trimming Policy

Year Ending December 31, 2003



NSTAR DISTRIBUTION TREE PRUNING POLICY

General

The Distribution Pruning Policy is intended to provide pruning contractors with guidelines for performing work acceptable to the NSTAR Company, including proper pruning techniques, work progress reporting and time reporting.

The Policy also documents general management procedures for dealing with the various aspects of Pruning Program Control.

The Policy pertains to both maintenance pruning, which is done on an ongoing cyclic basis of approximately three to six years and to "new work" pruning.

Note: Company representative or delegate as referred to in this policy shall be understood to mean those individuals normally assigned to monitor tree crew activities in a given district or area within a district.

Guidelines For Tree Pruning And Removal

- 1) Provisions of the latest revisions to ANSI A-300 American National Standard for Tree Care Operations Tree Shrub and Other Woody Plant Maintenance Standard Practices shall be followed.
- 2) The desired amount of clearance necessary for conductors and electrical equipment should be such that high winds, rain, heavy snow, ice or a combination of any of them will not cause limbs or trees to come in contact with wires or other equipment. Effort should be made to remove any dead trees or limbs that in the event of their falling could contact conductors.
 - a) Clearance Guidelines Refer to Exhibit 1.
 - b) Road Screens Where existing, shall be topped depending on the ground clearance of the conductors above, using the drop crotch or "Natural Pruning" technique as shown in Exhibit 1.
- 3) Generally Accepted Scientific Arboricultural Principles as Applied to line Clearance Work For safe and healthy trees, the following recommendations are suggested:
 - a) Branches growing into a conductor should be removed by cutting back at a lateral or main side branch, rather than stub cutting. ("Natural Pruning")
 - b) All cuts shall be properly made, using undercutting to avoid damage by loosening or stripping of bark; the so-called "Branch Bark Collar" shall be left intact but no stubs shall remain. Cuts shall be smooth to allow for callus tissue to form and to retard decay. Properly made saw cuts at the laterals, where the lateral is at least one third (1/3) the size of the branch or leader removed, reduce the number and vigor of re-growth sprouts through the trees natural growth mechanisms. ("Natural Pruning").

- c) In general, tree paint is not required. In specific instances state or municipal authorities may require tree paint. In such instances growth retardant paint should be used. Asphalt based tree paints shall not be used as they promote growth of certain rot fungi.
- d) Remove raised sucker clusters at parent limb and remove undesirable limbs that have been stubbed off and have formed accumulated sucker clusters.
- e) Directional prune so that growth will be away from wires.
- f) Lighten overhanging (within 10' of trimmed zone) or adjacent leaders and branches and shorten evergreens overhanging conductors to prevent limbs touching or breaking off and falling on lines in severe storms.
- g) Remove leaders and limbs that are a hazard to lines due to death, decay, weak configuration and split or weak crotches.
- h) Only appropriate tree tools in good working condition shall be used.
- i) Climbing irons shall not be used in any tree unless the tree is to be removed.
- j) All severed limbs and branches (hangers) shall be removed from trees after pruning.
- k) Guidelines for tree removal.
 - i) Unless previous arrangement has been made with the Company Representative, trees that are a hazard to the lines shall be removed; i.e. any tree which by the nature of it's health, size or condition endangers the line.
 - ii) Defective or diseased trees shall be removed whenever possible.
 - iii) Fast growing and weed trees shall be removed as undesirable species, whenever possible.
 - iv) Trees shall be felled away from conductors.
 - v) In areas where damage might be caused to conductors or property, trees shall be stripped of all limbs with the trunk removed in sections, as necessary.
 - vi) All brush shall be removed daily from public thoroughfares and other improved places unless otherwise arranged with the Company Representative.
 - vii) All stumps shall be cut flush and parallel to the ground. Tree stumps shall not exceed a maximum height of three (3) inches. All brush shall be cut flush and parallel to the ground.
 - viii) Wood and brush (cribbing) shall be used as a cushion to protect from potential damage due to felling trees or heavy limb sections. The probability of a bouncing effect is normally increased when using cribbing and should be allowed for.
- 4) Prioritization of Pruning Distribution pruning should be performed on a circuit basis whenever possible. Always start pruning from the substation out, as this area is of greatest importance due to the large number of customers affected by outages caused in this area.
- 5) Three-phase lines should have greater clearance and attention than single-phase spur lines. Pruning is performed to protect the largest number of customers from an interruption. Three-phase interruptions will affect more customers.

- 6) Safety Good Relations Clean-up
 - a) The contractor will take all safety and protective precautions and with respect thereto will strictly enforce all applicable regulations of Municipal, State and Federal Laws, the various insurers and the Company. These shall include OSHA and ANSI Z133.1.
 - b) A neat appearance, pleasant approach and a clear explanation as to what you mean or want when contacting people. In any instance where there is a misunderstanding or a possible cause for trouble with a customer or municipal official, notify the Company Representative, so that proper action can be taken. When a property owner or municipal official absolutely will not allow proper pruning refer the situation to the Company Representative in writing. If pruning in a given area is under dispute move to another area.
 - i) Utility Company Relations Tree crew to contact the Company every day and report work location; details of who to report to, when and where will be specified by the local Company Representative.
 - ii) Outage Whenever there is a question of a possible accidental outage of power caused by a tree crew, the Company is to be notified immediately.
 - iii) Municipal Regulations Notify the proper municipal official (Tree Warden, etc.) as required and let them know what location you are working in. Get permission to do tree work on municipal trees from the proper authority before doing the work.
 - iv) State Regulations When doing tree work on a State Highway have a copy of the State Tree Pruning Permit with Permit Number. All tree work on State Highways must be approved and supervised by the proper State Official. State regulations on barricades and warning signs must be observed.

Dispose of all debris properly and leave the work area in a neat and clean condition. Unless otherwise specified, wood shall be left for property owner. All trucks will have leaf blowers to clear roadway areas.

Contractor Responsibility

"The relationship of the Company and the Contractor is acknowledged to be that of owner and independent contractor. The means and methods employed for performing the details of pruning shall be the responsibility of the Contractor, subject to the suggestions and approvals of the Company's designated representative."

1. Compliance with Laws and Regulations – The Contractor shall comply with all applicable laws and regulations and all work and materials are to comply in every respect with all applicable codes, laws and regulations. All necessary permits, licenses, etc., for the Work unless obtained by the Company are to be obtained and paid for by the Contractor, the Company to reimburse the Contractor for the cost thereof unless the Work is being done on a fixed fee basis.

- 2. Instructions to Contractor Pruning work includes the furnishing of all supervision, labor, equipment, tools and services necessary to trim trees in designated areas and in a manner acceptable to local or state authorities and Company Representative, per the Pruning Contract/Purchase Order. The Contractor will report daily in writing to the Company Representative any damaged Company equipment (insulators, crossarms, etc.) encountered in the course of his work.
- 3. All crews are required to attend a yearly review of NSTAR Pruning Policy at the expense of the contractor

Other Related Items

- 1. Privately Owned Facilities The Company in general will not authorize pruning of privately owned facilities.
- 2. Contractor List Owners of private electrical facilities may occasionally ask for recommendations concerning private contractors for line maintenance or pruning work. The Company position is not to make recommendation of any specific contractor for reasons of liability.
- 3. Refusal to Allow Pruning When the pruning contractor reports a refusal to allow pruning, the Company Representative shall contact the involved party in an effort to secure the proper pruning. If no agreement can be reached the refusing party shall be contacted via registered mail (Return Receipt Requested)
 - The letter will relate our reasons for pruning i.e. protection of our facilities, reliability of service, protection of the public (tree climbers) and serve as documentation of our attempt to secure adequate pruning. Hopefully this letter will prompt some to reconsider their refusal. If not, we will have documentation of our intent and attempt to secure adequate pruning.
- 4. Documentation of Tree Removal When, due to diseased or dead state, ornamental or large shade trees are by necessity removed, documentation in the form of detailed notes and/or photographs should be kept. This documentation may be valuable in the event a customer later brings a claim against the Company for the value of a tree claiming "wrongful removal".

Methods of Pruning

There are many methods of pruning trees for line clearance, but not all methods are attractive or advantageous to the tree, nor are all methods effective for long-term line clearance. The basic pruning methods are pollarding, sharing or rounding over and natural pruning (Fig. 3).

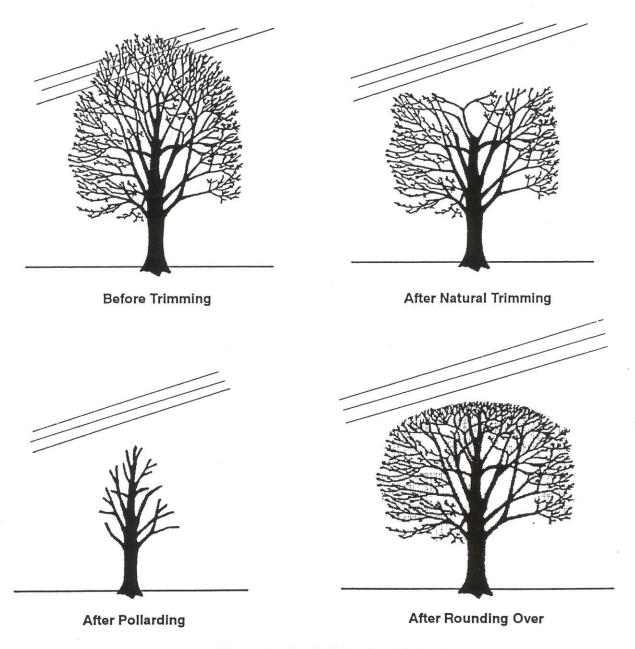


Figure 3. Basic Trimming Methods

Stubbing off major limbs by pollarding is not a desirable pruning practice.

The result is not only unsightly, but multitudes of fast-growing suckers sprout from the stubs and soon result in line clearance problems more serious than before. The stubs are also likely to fall victim to decay or disease. Finally, this method of pruning attracts unfavorable public attention.

Shearing or Rounding Over consists of making many small cuts so that the treetop is sheared in a uniform line. This results in rapid re-growth of many small sprouts, called suckers, directly toward the conductors. Because of this rapid re-growth of suckers, trees trimmed by the rounding over method need to be re-trimmed sooner than trees trimmed by the natural pruning period.

Natural Pruning is the method recommended by most professionals. Natural pruning is cutting branches flush at a suitable parent limb, back toward the center of the tree. This method of pruning is sometimes called "drop crutching" or "lateral pruning". An attempt is made to remove large branches to laterals at least one-third the diameter of the branch being removed. All cuts should be flush to avoid leaving stubs. Natural pruning is especially adapted to the topping of large trees where a great deal of wood must be removed. In natural pruning, most cuts are made on larger limbs with a saw, and little pole prune work is required. The results are natural-looking trees, even if large amounts of wood have been removed. Natural pruning is also directional pruning, since it tends to guide the growth of the tree away from the wires (Figure 4). Stubbing, on the other hand, tends to promote rapid sucker growth right back into the conductors.

It should be emphasized that natural clearance is highly effective in reducing future costs, and that two or three natural pruning cycles will produce an ideal situation for both the utility and the tree owner. Most shade trees lend themselves easily to this type of pruning. Elm, Norway Maple, Red Oak, Red Maple, Sugar Maple, Silver Maple and European Linden, the most common street trees, react especially well to natural pruning methods.

Crown Reduction is cutting back portions of the upper crown of a tree. Reducing is indicated when a tree is located directly beneath a line. The main leader of leaders are cut back to a lateral, which should be at least one-third the diameter of the limb being removed. Most cuts should be made with a saw. A pole pruner is used only to cut lateral branches. To minimize regrowth, no more than one-fourth of the crown should be removed when topping (Figure 5).

Side Pruning is cutting back or removing side branches that threaten the conductors. Side pruning is required where trees are growing adjacent to utility lines. Limbs should be removed at a lateral branch. Notches in tree crowns should be avoided, if possible. Shortening branches above and below the indented area, or balancing the opposite side if the crown, will usually improve the appearance of the tree. When pruning, all dead branches over the wires must be removed, since this dead wood could easily break off and cause an interruption in service. (Figure 5)

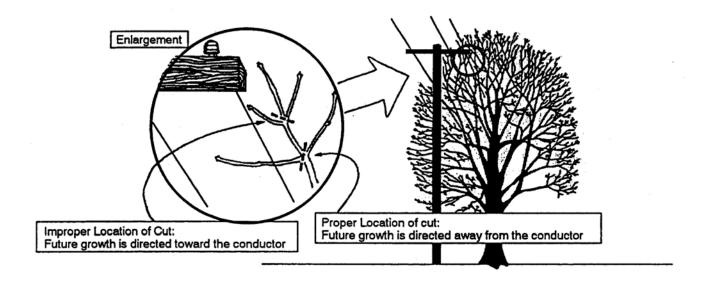


Figure 4. Natural Trimming (to direct growth away from wires)

Side Trimming is cutting back or removing side branches that threaten the conductors. Side trimming is required where trees are growing adjacent to utility lines. Limbs should be removed at a lateral branch. Notches in tree crowns should be avoided, if possible. Shortening branches above and below the indented area, or balancing the opposite side of the crown, will usually improve the appearance of the tree. When trimming, all dead branches over the wires must be removed, since this dead wood could easily break off and cause an interruption in service (Figure 5).

Overhang Or Under Pruning consists of removing limbs beneath the tree crown to allow wires to pass below the tree crown. This type of pruning will allow the tree to retain its natural shape and continue its normal growth. Overhangs are hazards when lines pass beneath a tree and should be removed according to the species of the tree, location and the general policy of the utility. When pruning, all dead branches above the wires are removed, since this dead wood could easily break off and cause an interruption. Many utilities have a set removal program for trees that overhang important lines (Figure 5).

Through Pruning is the removal of branches within the crown to allow lines to pass through the tree. It is best suited for secondaries, streetlight circuits, and cables, although it is often used on primary circuits where there is no other way of pruning the tree. Cuts should be made at crotches to encourage growth away from the lines (Figure 5).

Combinations - It is often necessary to combine several types of pruning in order to maintain acceptable tree appearance and provide adequate clearances.

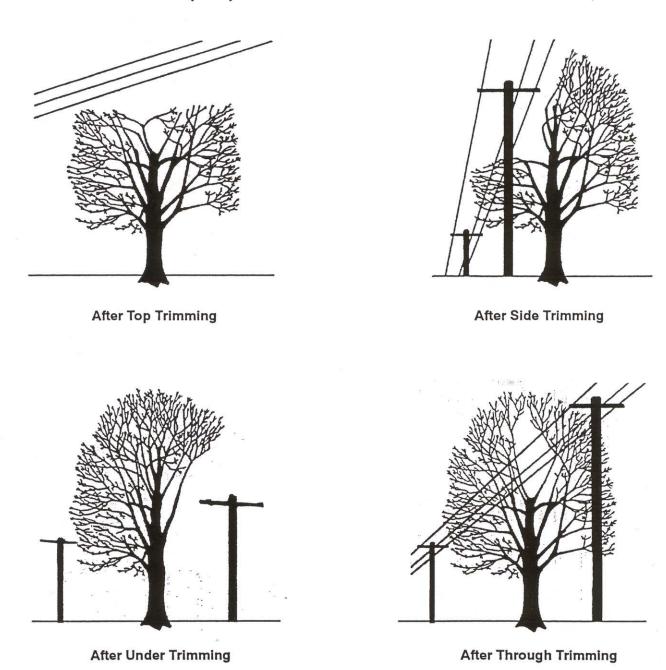


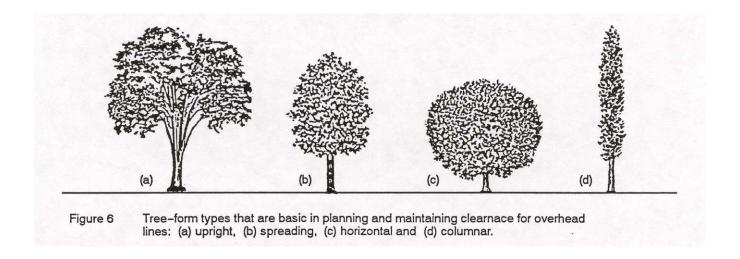
Figure 5. Four types of natural trimming.

ANSI A300 " <u>American Standard for Tree Care Operations – Tree, Shrub and Other Woody Plant Maintenance – Standard Practices"</u>, presents performance standards for the care and maintenance of trees and should be considered a part of this appendix and adhered to in tree operations under this policy.

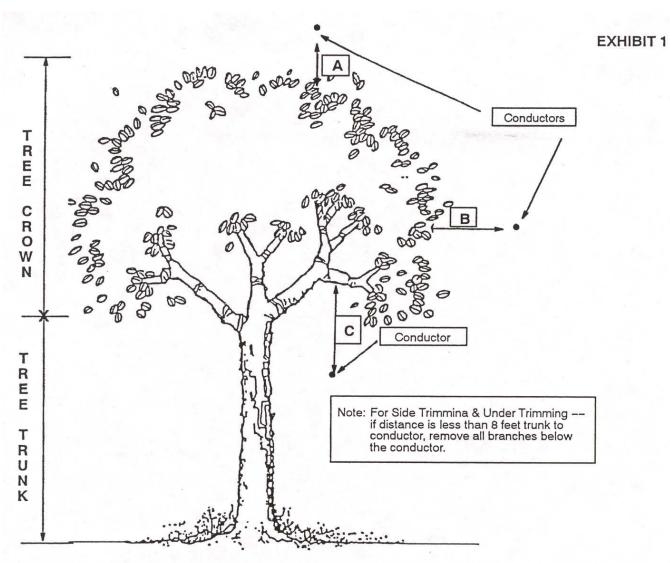
Techniques

Proper clearance for any type of overhead line is measured not only in feet of clearance but in effectiveness. Both tree and overhead line characteristics must be known to get the maximum effective clearance for each tree. Clearance not only must be adequate when the tree is trimmed but must last. Therefore, each tree should be trimmed so it will need less work at the next trim cycle.

Before tree trimmers begin work, they plan how they are going to trim each tree. Consideration is given to how and when a tree is going to re-grow after it is trimmed. Trees can usually be placed into one of four tree-form types: upright, spreading, horizontal or columnar (Figure 6). If possible, the natural form of the tree should be maintained so that it does not look heavily trimmed.



All line clearance tree pruning should be done in accordance with the American National Standard Safety Requirements for Pruning, Repairing, Maintaining and Removing Trees, and for Cutting Brush" (ANSI Z133.1). The ANSI Z133 standard provides safety criteria for line clearance tree trimmers and the public. Minimum working distances from energized conductors are listed and must always be observed.



Note: Our objective is to obtain trim clearances as indicated. However, extenuating circumstances may dictate that lesser clearnaces be accepted.

CLEARANCE	TYPE OF TRIMMING	MINIMUM CLEARANCE FOR 25 kV OR BELOW *
"A"		8 Feet
B	Side Trimming	8 Feet
"C"	Under Trimming (Remove overhang situations where possible)	12 Feet **

- * Services should be trimmed only to avoid contact.
- ** Thin, lighten, or shorten limbs above this point on pines to prevent snow loading.

Secondary electric lines shall be cleared for a minimum clearance of three feet.

Capital Expenditures

Year Ending December 31, 2003



	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
istribution:											
Framingham	Retire Station 360	_	-	_	-	-		-	54	457	
Mass Ave	Retire Primary Network Unit 9 Roxbury			-				-	747	277	(2
Mass Ave	Relieve the Newton line	-	-	-	-	-	-	-	293	197	- '-
Various	Field Support - External Activities	-	-	-	-	-	-	1	-	-	-
Various	Substation Data Collection System	-	-	-	-	-	-	91	-	-	-
Mass Ave	Bovis Construction Avery/Wash St, Boston	-	-	-	-	-	-	252	175	9	-
Waltham	Panametric Tech Kendrick St Needham	-	-	-	-	-	-	108	106	1	-
Mass Ave	Northeastern University, Davenport St Commons	-	-	-	-	-	-	195	18	- 16	-
Waltham Framingham	GTE - 100 Metro North, Woburn Tech Commons - Speen St, Natick		-	-	-	-	-	(25)	304 5	16 59	-
Walpole	The Summit Rosemont Rd Westwood		-	-				304	81	3	_
Mass Ave	Scheppens Eye Res., 20 Staniford St - Boston	-	-	-	-	-		149	65	-	_
Mass Ave	Modern Continental Construction - 470 Atlantic Ave., Boston	-	-	-	-	-	-	-	615	-	-
Mass Ave	Boston Athenaeum - 10 1/2 Beacon St	-	-	-	-	-	-	(104)	477	31	
Framingham	EMC Research & Development Building	-	-	-	-	-	-	`- 1	2	60	6
Mass Ave	Genzyme - Install New Supply Station - Allston	-	-	-	-	-	-	-	37	-	-
Mass Ave	Globix Internet 2 Line Customer Substations	-	-	-	-	-	-	-	16	447	2
Mass Ave	Broad &Wendell - 109 Broad Street, Secondary Network Vault 244	-	-	-	-	-	-	-	196	33	1
Various	Engineering Special Purchase 25/4KV Mobile Substation	-	-	-	-	-	-	-	7	320	-
Mass Ave Mass Ave	4kv Convert Circuit 8N9, Roxbury Establish Secondary Network Vault 464 - Columbus Ave - Boston		-	-		-		-	272	120	
Mass Ave	Relieve Brighton 13.8kv Distribution		-	-					426	-	_
Mass Ave	New Brookline Village Supply	_	-	-	-	-	_	-	955	18	_
Mass Ave	Relieve Coolidge Corner 506-05,07,9	-	-	-	-	-	-	-	247	13	-
Mass Ave	Increase Supply Medical / Fenway Area	-	-	-	-	-	-	- 1	1,859	1,602	-
Mass Ave	Relieve Walpole Line Group	-	-	-	-	-	-	-	216	19	-
Mass Ave	Relieve Arlington Line Group and Station #59	-	-	-	-	-	-	-	435	670	-
Mass Ave	Establish Tertiary Network Vault @ 1 Lincoln St - Boston	-	-	-	-	-	-	-	43	466	50
Somerville Waltham	Internet 200 Innerbelt Replace Direct Buried Cable - Stearns Hill Rd - Waltham	-	-	-	-	-	-	-	112	341	1:
Various	Increase Capacity at Station 488 - Chelsea		-	-					591	64	
Various	Network Spare Transformer	_	-	-		_		_	335	2,613	(
Mass Ave	Tufts Univ.,150 Harrison Ave - Boston	_	-	-	-	-	_	-	137	330	-
Mass Ave	Markley Stearns Boston - 1 Summer St.	-	-	-	-	-	-	-	(68)	21	
Walpole	University Ave Westwood 2%surcharge to switch from OH to Underground	-	-	-	-	-	-	-	442	11	(43
Framingham	Improve Reliability of Circuit 342-H1	-	-	-	-	-	-	-	2	192	35
Walpole	Relieve Circuit 65-H3 Step-downs	-	-	-	-	-	-	-	2	97	-
Mass Ave	Increase Secondary Network Vault 480 - Newbury St - Boston	-	-	-	- (0.1)	-	-	-	2	86	-
Various	Temporary Customer Distribution Capacitor		- 8	(41)	(34)	4	-	-	-	-	<u> </u>
Various Various	Rebuild Hospital Area		-	5	30	10		-		-	
Various	Various Stations - Replace PCB's	_	-		-	-	-	-	-	-	-
Various	Replace PCB Capacitors	_	(2)	2	4	-	_	-	-	_	-
Various	Various Station Miscellaneous Stations Additions	-	- '	-	-	1	0	(0)	-	-	-
Somerville/Waltham	Act of Public Authority - Washington St - Somerville	-	-	-	-	-	-	- 1	-	-	-
Various	Station 450 Recloser Switches	(1)	-	-	-	-	-	-	-	-	-
Various	Underground and Overhead Development	-	1	-	-	-	-	-	-	-	-
Various	Street - Distribution Equipment	-	13	-	-	-	-	-	-	-	-
Various Various	Street Lighting	-	4	-	-	- 0	-	-	-	-	-
Various	Station 12 - Chatham Street New Station #12 - Street	(2)		-	-	-		-		-	
Various	Station 274 Expansion	- (2)	-	-	-	-	-	-	-	-	
Various	Renewal to Electric System	-	(8)		-	-	-	-	-	-	-
Various	Various Station Miscellaneous Stations Additions	-	-	-	-	-	-	-	-	-	-
Mass Ave	Reconductor Circuit 3623 - Brighton	(4)	-	-	-	-	-	-	-	-	-
Various	Back Up Battery System	(9)	(1)		-	-	-	-	-	-	-
Mass Ave	Disconnect Street Service	-	(4)		-	-	-	-	-	-	-
	Auburn St - Raytheon	(1)		-	-	-	-	-	-	-	-
Various	Substation - Distribution	-	- (4)	-	- (0)	-	-	-	-	-	-
Various Various	Street Distribution Equipment Minor Capital Additions Distribution	-	(4)		(0)		-	-	-	-	-
	IVIII OI CADIAI AUGIIONS DISINDUION	-	(1)		(2)	-	-	-	-	-	-

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
	200	1001			100=						
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
/arious	Act of Public Authority - Minor Rearrange Various Station Miscellaneous Stations Additions		(1)	- (4)	-	-	-	-	-	-	
Various	Extend Circuit 416-H2		-	- (4)	-	-		-	-	-	
/arious	Station 509 Cambridge Lines	1			-	-			-	-	
Mass Ave	Station Vault Equipment	2	-			-			-	-	
Various	Street Equipment Exec House		(2)	-	-	-			-	-	
Various	Various Cities Minor Additions	-	(1)	-	-	-	_	-	-	-	
Various	Andrew Square Station	616	1,379	(1)	-	-	_	_	-	-	
Various	Andrew Square Station	8,418	2,167	25	-	-	-	-	-	-	
Various	Act of Public Authority - Various Towns	-	(1)	(1)	-	- 1	-	-	-	-	
Various	Various Station Miscellaneous Stations Ad	-	- 1	1	0	-	-	-	-	-	
Various	Retire Primary Network Unit #1	-	-	-	-	-	-	-	-	-	
Mass Ave	Rebuild - Extend 13-0	-	(2)	2	-	-	-	-	-	-	
Various	Station 502 - Norfolk Station	104	-	19	-	-	-	-	-	-	
Various	Install Cable Monitoring and Rating System Various Locations	-	-	26	-	-	0	-	-	-	
Various	Act of Public Authority Cummings Hyg Wr	-	174	46	-	-	-	-	-	-	
Somerville/Waltham	Act of Public Authority - Lexington St Overhead - Waltham	(1)	-	-	-	-	-	-	-	-	
Mass Ave	Act of Public Authority - Mason St - Boston	21	-	-	-	-	-	-	-	-	
Various	Install Cable Monitoring and Rating System Street	35	-	-	-	-	-	-	-	-	
Mass Ave	Substation Distribution	-	- 44	- 4	-	- 4	- (0)	-	-	-	
/arious	Street Distribution Customer	-	11	4	75	1	(8)	-	-	-	
/arious	Minor Capital Additions Transmission & Distribution		1	(5)	-	-	-	-	-	-	
Various Mass Ave	Cana Perm Rd Rel Cha			-	-	-	-	-		-	
	Extend 329-H1 Brighton		(4)		-	-			-	-	
/arious /arious	Renewal to Electric System Act of Public Authority - Various Towns		(6) (2)		-	-			-	-	
/arious	Various Station Additions	(1)	- (2)	1		-			-	-	
Mass Ave	Rebuild 13-01	2	-			-			-	-	
Mass Ave	Relieve Station 67 - Dorchester	(1)	-	-	-	-		-	-	-	
/arious	Replace Oil Switches	1	-	4	-	-	-	-	-	-	
	PT1 Hopkinton Growth	-	11	- 1	-	-	_	_	-	-	
Mass Ave	New Supply VA Hospital	5	-	-	-	-	-	-	-	-	
	Act of Public Authority - Lexington St & Other - Waltham	(4)	(4)	-	-	-	-	-	-	-	
/arious	Station 211 - Replace T110	(3)	32	15	-	- 1	-	-	-	-	
/arious	20-H4 Replace Ambr	- 1	-	-	-	- 1	-	-	-	-	
Various	Reconductor Circuit 284-01	4	-	-	-	-	-	-	-	-	
	Waltham Street Work	-	-	-	-	-	1	-	-	-	
Various	Underground and Overhead Development	-	(4)	-	-	-	-	-	-	-	
Various	Substation Distribution	-	-	-	-	-	-	-	-	-	
Various	Street Distribution Customer	-	(11)	(16)	36	(3)	-	-	-	-	
Various	Minor Capital Additions Transmission & Distribution	-	(6)	(4)	-	-	-	-	-	-	
Various	Interconnect NEA RO	4	-	-	-	-	-	-	-	-	
	Relieve Circuit 31501	-	-	17	-	-	-	-	-	-	
Mass Ave	Replace Split Fiber Main - Various	(2)	-	-	-	-	-	-	-	-	
	Prentiss St - Circuit	-	-	-	-	-	-	-	-	-	
	Relieve 433-H4	-	-	-	-	-	-	-	-	-	
/ariaa	Nagog Woods Action	- (6)	- (4)	-	21	-	-	-	-	-	
/arious	Renew Electric Transmission & Distribution System Renew Electric Transmission & Distribution System	(6)	(1)	-	-	-	-	-	-	-	
/arious /arious	Indirect Labor Supr 1989	- 8	9	-	-	-		-	-	-	
/arious	Various Stations - Minor Repairs	- 0	9	1	-	-		-	-	-	
/arious	Act of Public Authority - Street Work		(1)	(2)	-	-			-	-	
arious /arious	Minor Substation Work	2	(5)	- (2)	9	-		-	-	-	
uuu	Install Dig Transient	-	- (3)		-	-		-	-	-	
'arious	Boston Ed Energy Controls	7,172	3,167	605	185	(1,073)	0	-	-	-	
arious /arious	Station 320 Reactors		-	-	-	(6)	-	-	-	-	
/arious	Station 470 Switchgear	-	-	-	-	-	-	-	-	-	
/arious	Expand Radio - Sectional	11	-	-	-	-	-	-	-	-	
	N. Wash St - Duct Bank	-	-	-	-	-	-	-	-	-	
	Retirement of Primary Network Unit 4	1	-	-	-	-	-	-	-	-	
Mass Ave	New Distribution Circuit Hyde Park/Dedham	(2)	-	-	-	-	-	-	-	-	
/arious	Station Vault Equipment	6	22	1	7	- 1	(0)	-	-	-	
/ ai ious	Cities Towns Street		17	(7)							

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
		(22)		1000		1000					
Service Area	DESC DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Various	Outdoor Municipal Light	- 00	22	1	(0)		-	-	-	-	
Various	Expand Remote Monitoring System Part 2	23	17	-	-	-	-	-	-	-	
Mass Ave	Fenway Distribution Conversion	(1)	-	-	-	-	-	-	-	-	
Various	Establish Multiple Customer C11 Smith St	1	-	-	-	-	-	-	-	-	
	Phase 1 Conversion - Somerville	-	-	-	-	-	-	-	-	-	
Mass Ave	East Boston Conversion	2	-	-	-	-	-	-	-	-	
Various	Fiber - Optic - Bedford	-	-	-	-	-	-	-	-	-	
Various	MWRA Power Supply	-	-	(220)	2	-	(114)	-	-	-	
Various	MWRA Power Supply	-	-	-	-	-	(0)	-	-	-	
	Reconductor Circuit	-	-	-	-	-	-	-	-	-	
	Medford Center Backup	-	-	-	-	-	-	-	-	-	
	Circuit 146-H9 RT 1A	(6)	-	-	-	-	-	-	-	-	
	Rebuild Overhead	-	(27)	-	-	-	-	-	-	-	
Waltham	Speen Street Circuit 433-H1	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 274-H1 - Ashland	2	-	-	-	-	-	-	-	-	
	Indirect Engineering EESO 1990	(6)	2	-	0	-	-	-	-	-	
Various	Transmission & Distribution Renewals Metro	(46)	(16)	- 1	(0)	-	-	-	-	-	
Various	Metro Transmission & Distribution Paving	- 1	3	-	- ` `	-	-	-	-	-	
Various	Substation Transmission & Distribution Renovations	-	(1)	-	-	-	-	-	-	-	
Various	Metro Transmission & Distribution Paving	2	-	-	-	-	-	-	-	-	
Various	Act of Public Authority - Various Towns	-	(1)	-	-	-	-	-	-	-	
Various	Miscellaneous Station Additions	42	(6)	5	-	-	-	-	-	-	
Various	Transformer Performance Analysis	-	3	-	-	-	-	-	-	-	
	Retrofit Sprinkler	8	(22)	(117)	(0)		-	-	-	-	
Various	Improve Reliability	-	-	-	-	-	-	-	-	-	-
various	Overhead Reconductor Line 419-9	1	-	-	_	-	_	_	-	-	-
	Extend Line 13-109 Street Work		-	(1)	_	-	_	_	-	_	
	Street Work Station 496	-	-	- (1)	-	-	-	-	-	-	
	West Medway 2nd Parcel	-		-	-	-		-	-	-	
	Station 292 Auto Bus Restoral Scheme		87								
M A		- 4		-	-	-	-	-	-	-	
Mass Ave	Install Micro For Prudential	1	-	-	-	-	-	-	-	-	
	Substation Alarm	-	-	-	-	-	-	-	-	-	
Mass Ave	Replace Split Fiber Main	-	-	-	-	-	-	-	-	-	
	Reconductor Circuit 52-0	71	53	8	-	-	-	-	-	-	
	Establish TOE To Cl	5	-	-	-	-	-	-	-	-	
	Establish New Secondary Network Vault 89 Street Work	2	-	-	-	-	-	-	-	-	
	Establish Secondary Network Vault 89 Street Work	-	-	-	-	-	-	-	-	-	
	Establish Secondary Network Vault 587 North	-	-	-	-	-	-	-	-	-	
	Establish Secondary Network Vault 587 North	1	-	-	-	-	-	-	-	-	
Various	Underground and Overhead Development	-	8	-	-	-	-	-	-	-	
Various	Substation - Customer	9	-	-	(39)	48	-	-	-	-	
Various	Street Customer	-	20	17	1	-	-	-	-	-	
Various	Various Transmission & Distribution Minor Capital Additions	-	(56)	(4)	1	(0)	-	-	-	-	
√arious	Various Outdoor Street Lighting	-	(15)	16	-	-	5	-	-	-	
Various	Establish New Multi Customer-14 BHA	6	3	6	-	-	-	-	-	-	
	SCADA Augmentation	9	-	- 1	-	-	2	-	-	-	
	Upgrade New England Ex Pk	-	-	-	-	-	-	-	-	-	
	New Dedham Circuit	-	-	-	-	-	-	-	-	-	
	Relieve Acton Circuit	-	-	-	-	-	-	-	-	-	
Various	Act of Public Authority - Hyde Park Ave - Hyde Park	-	-	-	-	-	-	-	-	-	
/arious	EE & SO Indirect Engineering	-	-	-	-	-	-	-	-	-	
/arious	Transmission & Distribution Renewals - Metro	1	(1)	-	-	-	-	-	-	-	
/arious	Substation Transmission & Distribution System Renovations	-	(137)	-	(1)	-	-	-	-	-	
/arious	Metro Transmission & Distribution Asbestos Removal	(2)	-	-	- (-/	-	-	-	-	-	
/arious	Metro Transmission & Distribution Indirect Labor	- (2)	-	-	-	-	-	-	-	-	
/arious	Various Projects	-	(1)	(16)	-	-	-	-	-	-	
- 0.7000	Purchase and Sale	-	- (1)	688	-	-	-	-	-	-	
Various	Act of Public Authority	-	(4)	-	-	-	-	-	-	-	
various Various	Miscellaneous Station Additions	149		-	- 0	-	-	-	-	-	
vailUus			(1)								
	Radio Control Sectional	1	-	-	-	-	-	-	-	-	
	Establish New Chestnut Hill Supply Establish Circuit 277-1367H1S	-	- (3)	-	-	-	-	-	-	-	
	DESIGNATION OF THE AND A STATE O	-	(3)	-	-	-	-	-	-	-	
Various	Replace Transformer Station 65	1,382	1,061	139	(15)		-	(1)		-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
0	DECO	4004	1005	1000	4007	4000	1000	0000	0004	0000	0000
Service Area	Transformer Top Oil Manitoring	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
/arious	Transformer Top Oil Monitoring Rebuild Circuit 211-503/	(41)		-	-	-	-	-	-	-	
various	Retire Quincy Facility	33	-	14		-		-	-	-	
	Radio Control sectionalizing	1		- 14		-			-	-	
	Station 211 Autotransformer Modification	- '	153	-		-			-	-	
	Relocate Circuit 292-03,08,H8	83	-			-			-	-	
	Increase Capacity Ashland/Hopkinton	-	81	54	8	-		-	-	-	
	Install Fault Indicator		1	-	0	-			-	-	
	Retire Station 330 Needham Station Work	62	40	(1)	-	-			-	-	
	Retire Equipment Station 330 Needham	12	4	- (1)	_	-		-	-	-	
	Telecom Upgrade	-	-	-		-	_	-	-	-	
	Purchase Property - Hopkinton	1	-	-	_	-		-	-	-	
Various	Pump Plant Replace -Station 7	5	-	-		-	_	-	-	-	
/arious	Replace Obsolete Terminals	72	_	-		-			-	-	
/arious	Retire Line 398-537 Station 39	4	_	-		-	_	-	-	-	
	Reconductor Circuit 21N31 - Roxbury	62	101	2		-		_	-	-	
	Various Station - Off Line work	- 02	-	-		-			-	-	-
	Station 375 13.8kv Switchgear					-			-	-	-
Various	Underground and Overhead Development	-	33	11	(0)				-	-	
Various	Substation Distribution	64	236	(91)	82	(47)			-	-	
Various	New Customer Service	374	65	297	45	0	- 0		-	-	
/arious	System Improvement	194	(3)	- 251		-	-		-	-	
/arious	Street Lighting	- 134	52	28	(3)		3	-	-	-	
/arious	Communication Upgrade - Various Circuits	16	-	-	(8)		-	-	-	-	
/arious	Various Stations - Replace Roofs	-	1	-	- (0)	-			_	_	
anous	Station 492 13.8kv Switchgear					-			-	-	
	Disconnect/Reconnect Control Section Board		1	-		-			_	_	
	Station 514 - add Platform	-				-			-	-	
	Automate Station 250 - Mystic Station Everett	1	3	-		-			-	-	
	Install Digital Transient	1	-			-		-	-	-	
	Station 12	49	4			-			-	-	
	Tertiary Network Vault - 13.8kv Vacuum Switch	49	- 4	2	5	-			-	-	
Mass Ave	Establish Secondary Network Vault 101 - Boston Street Work	22	-			-			_	-	
Mass Ave	Establish Secondary Network Vault 101 - Boston Street Work	- 22	-	-	- 0	-			-	-	
VIGOS AVC	Replace Power Line Carrier	623	89	(118)	-	-		_	-	-	
Mass Ave	Circuit 52-12 College Ave - Boston	- 025	-	- (110)		-	-	-	-	-	
Various	North Ave Bridge Approach	5	-	-		-		_	-	-	
/arious	Establish Conduit System	98	153	-		-	-	-	-	-	
/arious	Replace Fiber Main Distribution	95	10	-		-			_	-	
various	Reconductor Circuit 13-10	16	-	-		-			-	-	
	Reconductor Circuit 13-08	- 10	-			-			-	-	
Mass Ave	Relieve 139-09 SB Street Work	-				-			-	-	
viass Ave		142	- 5			-		-	-	-	
/orious	Distribution Auto Pilot Program Reconstruct Washington Street - Jamaica Plain	187	8			-		-	-		
/arious	Install Conduit & Cabinet - W. 4th St					-		-	-	-	
	Rebuild Circuit 293-01	-	-			-					
	Rebuild Circuit 49-02.07	- 4				-		-	-	-	
		75	77			-		-	-	-	
	Relieve & Reconfigure Circuit 306-0					-		-			
/arious	Convert 4kv to 15kv Underground Charlestown Create Circuit 64-H4	2	- (21)			-		-	-	-	
anous	Circuit 311-1406H1 Milton	83	(21)	-		-		-	-	-	
		- 03	-			-		-	-	-	
	Relieve Circuit 342-H4 Sudbury Extend Circuit 292-H8 - Newton									-	
arious	NEPEX Direct Rep Project	- 1	-	-	-	-	-	-	-	-	
arious arious	EE & SO Indirect Engineering	153	- 22	-	-	-	-	-	-	-	
				-							
'arious	Decision Support	-	-	15	-	-	-	-	-	-	
laviaa	A/P Document Imaging	- (5)	-		-	-	-	-	-	-	
/arious	Metro Transmission & Distribution Equip & Tools	(5)	- (4)	-	-	-	-	-	-	-	
/arious	Transmission & Distribution Renewals Metro	(33)	(1)	9	- (1)	-	-	-	-	-	
/arious	Transmission & Distribution Renewals - Substation	-	4	1	(1)		-	-	-	-	
/arious	Metro Transmission & Distribution Asbestos Removal	-	-	-	-	-	-	-	-	-	
		_									
/arious /arious	Metro Transmission & Distribution Indirect Labor Distribution Transformer Equipment	5 -	- (2)	- (5)	-	-	-	-	-	-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Various	Building Service Equip	1954	1995	1990	-	1990	-	-	2001	-	2000
/arious	Electric Design Expansion	216	-	-	-	-	_	_	-	-	
	Hyde Park Canopy	(20)	-	-	-	-	-	-	-	-	
	Fuel Tank Reinforcement - Waltham	- 1	-	-	-	-	-	-	-	-	
Various	Acts of Public Authority	-	1	1	(3)	-	-	-	-	-	
Various	Various Station Replacement Failures	-	7	-	-	-	-	-	-	-	
√arious	Various Station Replacements	1	1	-	-	-	-	-	-	-	
	Mobile Radio Equipment	-	-	-	-	-	-	-	-	-	
	Re-Feed Polaroid	211	(48)	-	-	-	-	-	-	-	
	Millis Supply Security	68	-	-	-	-	-	-	-	-	
/arious	Radio Control sectional	957	657	84	119	51	-	-	-	-	
	Station 24 Women's Locker - Crew reporting	21	-	-	-	-	-	-	-	-	
	Station 24 Men's Locker - Crew reporting	4	-	-	-	-	-	-	-	-	
	Station 20 Women's Locker - Crew reporting	37	-	-	-	-	(0)	-	-	-	
	Station 20 Men's Locker - Crew reporting	45	-	-	-	-	-	-	-	-	
	Secondary Network Vault - Install Distribution Switch	16	-	-	-	-	-	-	-	-	
	Tertiary Network Vault - Remove/Install	- 47	-	- 101	-	-	-	-	-	-	
	Convert Station 118 - 4kv	47	3	101	2	-	-	-	-	-	
	Retire Station 118 - 4kv	241	- 34	- 31	7	-	-	-	-	-	
Mass Ave	Retire Station 118 - 4kv Replace Split Fiber Main	131	187	- 31	-	-		-	-	-	
viass Ave	Norfolk Land Acquisition	-	-		-	-			-	-	
	MATEP Supply	491	40	1	-	-		-	-	-	
/arious	Alewife Bridge Replacement	-	(14)	- '	-	-		-	-	-	
/arious	Station 509 - Alewife Bridge	8	(8)	-	-	-		-	_	-	
/arious	Station 65 - Rebuild Ring	32	2	50	2	(135)	-	-	-	-	
	Station 446 R - Replace Annunciator	9	28	-		-	_	-	-	_	
	Station 433 Auto Substation	131	22	9	0	-	_	-	-	-	
/arious	Various Substations Minor Additions	4	(1)	-	-	-	-	-	-	-	
	Station 514 - 15kv Switchgear	45	- 1	-	-	-	-	-	-	-	
	Station 60 Transformer & Relay	-	-	-	-	- 1	-	-	- 1	-	
/arious	Cathodic Protection	8	-	-	-	-	-	-	-	-	
	Station 400 - Replace Battery	2	-	-	-	-	-	-	-	-	
	Replace Circuit Breakers	27	-	-	-	-	-	-	-	-	
	Station A533 SCADA Cable	-	-	-	-	-	-	-	-	-	
	Establish Circuit 48 Reg Bldg	9	-	-	-	-	-	-	-	-	
	Install Toilet Station 51	1	-	-	-	-	-	-	-	-	
	Security Control Line Group	4	-	-	-	-	-	-	-	-	
	Act of Public Authority NW DUD	215	-	-	-	-	-	-	-	-	
	Station 33 Locker Room	(19)	-	-	-	-	-	-	-	-	
	Station 250 Locker Room	(24)	-	-	-	-	-	-	-	-	
	Station 402,Replace Station Server	-	2	60	-	-	-	-	-	-	
	Various Stations - off-line work	-	- 4	- 17	- (F)	-	-	-	-	-	
	Secondary Network Vault 86 Secondary Network Vault 127	8	1	17	(5) (2)		-	-	-	-	
	Secondary Network Vault 127 Secondary Network Vault 132	6	1	4	(3)				-	-	
	New Secondary Network Vault - North End	5	47	3	- (3)	-		-	-	-	
	New Secondary Network Vault - North End	114	65	96	30	-			-	-	
	Secondary Network Vault 263A&B	14	2	42	19	-	-	-	-	-	
	Secondary Network Vault 316	4	1	4	(4)			-	_	-	
	Underground and Overhead Development	101	39	15	(0)		_	-	-	_	
	Install Tertiary Network Vault 662	1	-	-	-	-	-	-	-	_	
arious	New Customer Service	1,528	72	3	(1)	5	1	-	-	-	
arious	System Improvement	- 1,020	100	118	7	(128)	-	-	-	-	
	Street Lighting	-	11	20	(5)		-	-	-	-	
	Secondary Network Vault 16	28	-	-	- ` ´	-	-	-	-	-	
	Station 292 Load Relief	1	-	-	-	-	-	-	-	-	
	Discontinue Circuit 36	-	-	-	-	-	-	-	-	-	
	Station 202	-	-	-	-	-	-	-	-	-	
	Install 3 Phase Relays	(39)	-	-	-	-	-	-	-	-	
	Install 3 Phase Relays	-	2	11	-	-	-	-	-	-	
	1	67	-	-	-	-	-	-	-	-	
/arious	Install Transformer Recloser Secondary Network Vault 299 Perl St	46	14	-	0	_		_	_	-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Service Area	Reroute Circuit 65-H3	154	1993	1990	-	1990	-	- 2000	-	-	2000
	Remove Step-Downs	-	-	52	_	-	_	_	-	-	
Various	New Northern Ave Duct	23	49	-	-	1	-	-	-	-	
	Brighton - 15kv Conversion	346	19	139	0	-	-	-	-	-	
	Station 211 - 509 Circuit Breaker	2	-	(22)	-	-	-	-	-	-	
	Relief Circuit 477-01 Brighton	27	17	-	-	-	-	-	-	-	
	Act of Public Authority - 2nd Ave Reconstruction	102	-	-	-	-	-	-	-	-	
	Street Work Bear Hollow Rd Wayland	42	-	-	-	-	-	-	-	-	
	Purchase Power Quality	-	-	-	-	-	-	-	-	-	
	Winchester Upgrade	17	13	-	-	-	-	-	-	-	
	Secondary Network Vault - Install Network Transformer	30	7	61	-	-	-	-	-	-	
	Replace Network Transformer	3	-	-	-	-	-	-	-	-	
	Secondary Network Vault 193 A&B Station 30	34	-	-	-	-	-	-	-	-	
	New Secondary Network Vault 102	63	- 1	- 7	-	-	-	-	-	-	
	Replace Network Transformer	62	1		0	-		-	-	-	
	Station 450 ALD Modification Station 470 ALD Modification	- 2	-	-		-		-	-	-	
	Station 470 ALD Modification Station 416 ALD Modification	2	-	-		-		-	-	-	
	Act of Public Authority - South Artery Quincy	- 2	-			-		-	-	-	
Various	Metro Transmission & Distribution Equipment & Tools	-	-			-		-	-	-	
/arious	Transmission & Distribution Renewals - Metro	(39)	92	-		-			-	-	
/arious	Metro Transmission & Distribution Paving	-	-	-		-		-	-	-	
/arious	Transmission & Distribution Renewals Substation	-	8	1	(0)	-	-	-	-	-	
/arious	Metro Transmission & Distribution Asbestos Removal	96	-		1	-	-	-	-	-	
/arious	Indirect Engineering - Distribution	-	(45)	-	-	-	-	-	-	-	
/arious	Metro Transmission & Distribution Indirect Labor	-	- 1	-	-	-	-	-	-	-	
/arious	Distribution Transformer Equipment	-	86	43	55	2	-	-	-	-	
/arious	Garage Equipment	13	-	-	-	-	-	-	-	-	
/arious	Alterations & Improvements	132	-	-	-	-	-	-	-	-	
/arious	Building Service Equipment	1	-	-	-	-	-	-	-	-	
-ramingham	Framingham Service Center Truck Canopy	38	-	-	-	-	-	-	-	-	
Vatertown	Watn Materials Mgmt Center Space Expansion	(12)	-	-	-	-	-	-	-	-	
	Replace Emergency Generator - Somerville	10	-		-	-	-	-	-	-	
	Environmental Risk Management System	-	-	2		-	-	-	-	-	
/arious	Acts of Public Authority	239	166	2	10	-	-	-	-	-	
	Replace/Repair Transformer	-	122	1	-	-	-	-	-	-	
	Various Station Equipment/Tools	-	11 43	-	-	-	-	-	-	-	
	Replace Wear/Tear/Obsolete		25	-	- 2	-	-	-	-	-	
	Station 467 - 13.8kv Switchgear	726 602	25	2		-		-	-	-	
	Station 483 - 13.8kv Switchgear Replace Transformer Station 566	- 602	40	(2)		-		-	-	-	
/arious	Upgrade Transmission Power System	266	170			-			-	-	
/arious	Real Time 148-522XY	57	38			-			-	-	
/arious	South Boston Demo	138	684	82	2	23	2		-	-	
	Station 373 Switchgear Transfer	104	4	-	-	-	-	-	-	-	
	Install Ventilation Station 28	13	-	-	-	-	-	-	-	-	
	Expand Station 488	2	95	34	8	-	-	-	-	-	
/arious	Reconductor Wellesley Circuit 41-212	(3)	-	-	0	111	-	-	-	-	
	SCADA Control for Various Locations	251	7	2	1	-	-	-	-	-	
	Install Power Quality Meter	46	121	1	-	-	-	-	-	-	
/arious	Station 488	-	-	-	5	-	-	-	-	-	
arious	Replace Breakers Station 224	45	36	(9)	-	0	-	-	-	-	
arious	Load Growth/Improvement/Reliability	28	55	-	-	-	-	-	-	-	
	Station 492 Replace Transformer	-	91	49	0	-	-	-	-	-	
	Replace Network Transformer	-	59	8	-	-	-	-	-	-	
	Station 433 New H9 Circuit	8	7	13	1	-	-	-	-	-	
arious	Station 446R Install Distribution Network	111	56	-	-	-	-	-	-	-	
	Station 514N Replace Transformer	-	9	161	-	-	-	-	-	-	
	Purchase Structure	27	3	-	-	-	-	-	-	-	
/arious	Establish Multi Customer13:BCH	177	(7)	3	-	-	-	-	-	-	
	Improve Reliability Chestnut Hill	99	- (207)	-	-	-	-	-	-	-	
	Station 250 Transformers 110F	645	(387)	-	-	-	-	-	-	-	
	Electric Document Management System Establish Secondary Network Vault 284-64-70	262	47 59	- 34	- 23	- 5	-	-	-	-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Service Area	Replace Network Transformer/Protectors	51	1995	1990	-	1990	-	-	-	-	2003
	Auto Bus Restoral	-	18	-	-	-	-	-	-	-	
Various	New Customer Business	3,037	2,824	438	(14)	(13)	(4)	-	-	-	
	Minor Capital Additions	2,692	992	46	66	0	1	-	-	-	
Various	Street Lighting	670	245	44	(0)	2	2	-	-	-	
	Testboard Replacement	1	32	-	-	-	-	-	-	-	
	Infrared Systems	57	-	-	-	-	-	-	-	-	
	Establish New Tertiary Network Vault 6194	4	81	-	3	-	-	-	-	-	
	ZMWE EWPL @ FED RES	140	(100)	-	-	3	-	-	-	-	
	Establish Secondary Network Vault 245 Beacon St	6	42	6	-	-	-	-	-	-	
Various	Extend 146-H8 Wal/Shar	179	151	22	- (4)	-	-	-	-	-	
	Overhead Oil Switch 4kv Replacement	139 45	107	- 3	(1)	-	-	-	-	-	
	Overhead Oil Switch 4kv Replacement	119	- 0	-	-	-	-	-	-	-	
	Overhead Oil Switch 4kv Replacement	- 119	1	92	-		-	-	-	-	
	Establish Circuit 50 Boston Police Headquarters Establish Circuit 49 Mass College	2	114	- 92	-		- 0	-	-	-	
	Replace Split Fiber Main Distribution	348	75	-			-			-	
	Replace Power Line Carrier L325,L316	469	247	-		-		_		-	
	Establish Secondary Network Vault 189 Station Work	3	-	-	-	-	-	-	-	-	
Somerville/Waltham	Establish Secondary Network Vault 189 Street	72	6	-	-	268	119	-	-	_	
Jonnoi Viii oi VVaianam	Establish Circuit 53 New England Telephone	-	51	8	-	-	-	-	-	-	
	Improve Circuit 416-H3	4	14	56	-	-	-	-	-	-	
/arious	Improve Reliability	76	210	3	251	9	-	-	-	-	
/arious	Switchyard Upgrade Station 650	1,683	879	-	-	-	-	-	-	-	
	Station 369 - Newton	-	32	-	-	-	-	-	-	-	
	SONET Test Equipment	34	-	-	-	-	-	-	-	-	
	Willis Rd Sudbury	-	113	-	0	-	-	-	-	-	
Mass Ave	Station 20 Prefab Building	-	51	-	-	-	-	-	-	-	
	Station 146 Storage Building	-	9	(1)	-	-	-	-	-	-	
	Establish Distribution Circuit	-	3	2	-	-	-	-	-	-	
	Auto Bus Restoral	-	37	-	-	-	-	-	-	-	
	Replace Network Transformer	-	-	267	3	-	-	-	-	-	
, .	Establish Secondary Network Vault 289	-	109	1	0	-	-	-	-	-	
Various	Turnpike St - Canton	24	1	69	1	12	-	-	-	-	
	Hydran Dissolved Gas System	29 106	183	- 6	-	-	-	-	-	-	
	Carlisle Circuit Upgrade INAR ZMWE @FED RES	100	2	-	-	- (3)	-	-	-	-	
	Upgrade Somerville Supply	217	32	45	2	- (3)	-	-	-	-	
	Three Phase Metering	-	-					1		-	
	Station 282 Install Distribution Hydrant Vacuum	-	-	-	1	-	-	- '	-	-	
	Network Transformer Emersion	_	32	-	98	-	-	-	_	_	
Somerville/Waltham	North End Conversion	25	-	_	71	185	184	-	-	_	
	Information Service Indirect Engineering	3,413	-		-	-	-	-	-	_	-
	Interchange Metering	-	-	-	-	-	-	-	-	-	
Various	Field Services Systems	-	-	630	87	25	-	-	-	-	
	Purchase Equipment & Tools	68	-	-	-	-	-	-	-	-	
/arious	Like for Like Replacement	13,188	597	(4)	(5)	(18)	-	-	-	-	
	Paving	-	8	3	-	-	-	-	-	-	
	Purchase Equipment & Tools	17	6	-	-	-	-	-	-	-	
/arious	Indirect Engineering & Supervision	2,167	-	-	-	-	-	-	-	-	
/arious	Indirect Engineering & Supervision N/E	2,592	-	-	-	-	-	-	-	-	
/arious	Purchase Equipment & Tools	32	4	-	-	-	-	-	-	-	
/arious	Indirect Engineering & Supervision	4,967	-	-	-	-	-	-	-	-	
arious	Purchase of Distribution Transformers	-	597	626	564	360	155	-	-	-	
	Alter/Improve Off-Service	615	-	-	-	-	-	-	-	-	
	Building Service Equipment	26	-	- (7)	-	-	-	-	-	-	
/	Design Project Management	-	-	(7)	-	-	- (4.44)	-	-	-	
/arious	Acts of Public Authority	-	199	133	26	93	(141)	-	-	-	
/ariaua	Lab Blanket	-	393	27	-	-	-	-	-	-	
/arious	Failure in Service	-	237	186 27	-	-	-	-	-	-	
	Various Station Portable Tools Replace/Wear/Tear/Obsolescence		70 82	11	-	-	-	-	-	-	
	Retire Station 118 - 4kv		3	6	-	-	-	-	-	-	
Mass Ave	Major Customers SAS		10	4	10	-	-	- 0	-	-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
201110071100	Extend Circuit	-	221	21	-	-	-	-	-	-	2000
Various	Rebuild MATEP Line	-	832	134	-	-	-	-	-	-	
Various	Retire Station 303	-	38	2	-	-	-	-	-	-	
Framingham/Walpole	Relocate Circuit 282-H8	-	1	2	-	657	46	0	-	-	
Various	Install Network Transformer	-	1	6	155	1	-	-	-	-	
Mass Ave	Boston College New Supply	-	84	205	116	-	10	174	434	-	
Framingham/Walpole	Improve Newton Power Supply	-	205	21	0	22	-	-	-	-	
	Reconductor Circuit 516-08	-	163	(2)	-	-	-	-	-	-	
	Establish Secondary Network Vault 29	-	58	6	-	-	-	-	-	-	
	Secondary Network Vault - Huntington - Boston	-	18	56	-	0	-	-	-	-	
	Station 329 Backflow	-	8	33	-	-	-	-	-	-	
	Station 282 Backflow	-	6	1	-	- 1	-	-	-	-	
	Establish Circuit 65-H5	-	-	293	-	-	-	-	-	-	
Various	Station 65 - 4kv	-	16	99	0	2	-	-	-	-	
	Retire Station 65	-	354	6	-	- 1	-	-	-	-	
	Station 125, 135 Replace Breaker	-	110	11	9	0	-	-	-	-	
Various	Replace Directional Relays	-	32	15	5	3	(0)	-	-	-	
Various	Replace Fiber Optic	-	1	-	-	-	- ` `	-	-	-	
Various	Replace Station 33 Roof	-	107	-	-	4	-	-	-	-	
	Monitoring Transformers	-	103	-	-	-	-	-	-	-	
	Establish Station 35	-	70	-	1	-	-	-	-	-	
Various	Station 211 - Inst Digital Transient Recorder	-	22	-	4	-	-	-	-	-	
	Edgar Station Roof	-	32	-	-	-	-	-	-	-	
	Install Fiberoptic	-	11	-	-	-	-	-	-	-	
	Establish Station 31	-	55	6	(65)	-	-	-	-	-	
Various	Install Oil Containment	-	2	-	3	-	-	-	-	-	
Various	Cathodic Protection	-	4	-	8	-	-	-	-	-	
Various	New Customer Business	(42)	3,744	2,994	708	17	(14)	2	-	-	
Various	Minor Capital Additions	3	2,919	897	180	2	2	0	-	-	
Various	Street Lighting	-	372	90	36	9	4	0	-	-	
	Replace Overhead 4kv Oil Switch	-	93	-	(1)		-	-	-	-	
	Power Quality Meter	-	40	-	- '	-	-	-	-	-	
	Relieve Circuit 586-161H	-	125	72	0	-	-	-	-	-	
	Station 2 - 13.8kv Switchgear Bus	-	505	4	6	-	-	-	-	-	
	Dobly Relay Test	-	77	10	(5)	-	-	-	-	-	
	Replace Circuit Breaker	-	549	14	- ` ´	-	-	-	-	-	
Mass Ave	Convert Station 15 Station Work	-	20	81	152	1	(0)	-	-	-	
Mass Ave	Convert Station 15 Street Work	-	1,722	1,719	84	1	-	-	(18)	-	
Somerville/Waltham	Natick Conversion	-	-	70	29	64	8	-	- 1	-	
	Oil Switch Replacement - S. West	-	-	-	(1)		-	-	-	-	
	Oil Switch Replacement - S. West	-	20	-	- '	-	-	-	-	-	
Mass Ave	Convert Station 14 Station Work	-	92	110	205	5	-	-	-	-	
Mass Ave	Convert Station 14 Street Work	-	830	686	87	24	3	-	-	_	
	Tertiary Network Vault 684 - Boston	-	-	246	-	-	-	-	-	-	
	Tertiary Network Vault 6189 - Boston	-	-	216	(19)		-	-	-	_	
	Establish Secondary Network Vault 568	-	9	145	10	-	-	-	-	-	
	Retire Secondary Network Vault 386	-	3	1	-	-	-	-	-	_	
	Install Fiberoptic	-	602	- '	_	-	-	-	-	-	
Various	North Communications	-	1,066	-	240	-	0	14	3	(17)	
	Purchase Infrared Camera	_		57		-	-			-	-
	Capacity Upgrade Station 36	-	104	-		-	-	-	-	-	
Mass Ave	Convert Station 315 Station Work	_	-	16	88	10	23	_	_	_	-
Mass Ave	Convert Station 315 Street Work	-	-	3,432	655	(1)	0	-	-	-	
Mass Ave	Convert Station 477 Station Work	-	-		-	20	24	-	-	-	-
Mass Ave	Convert Station 477 Street Work	-	-	3,984	1,431	19	1	-	-	_	
	Establish Secondary Network Vault 581	-	-	181	0	1	1	-	-	-	
	Replace Transformer 24B	-	-	-	-	- '	0	-	-	-	
	Replace Transformer 24B	-	159	-	-	-	-	-	-	-	
	MATEP Metering	-	17	4	-	0	-	-	-	-	
Various	Hopkinton Station 126 - Station Work	-	60	132	609	4,572	628	5	(1)	-	
various	Retire Transformer 24B		-	33	-	- 4,572	-	-	- (1)	-	
	Station 320 Control/Relay		4	-	- 0		-	-	-	-	
	Establish Tertiary Network Vault 6190		-	111	338	-	-	-		-	
	Detector Tertiary Network Vault 607		44	1	- 336	-	-		-	-	

<u> </u>	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Alternate Dispatch	-	6	-	-	-	-	-	-	-	
	Retire Secondary Network Vault 281	-	- 54	1	-	-	7	-	-	-	
Various	Establish Station 44 Keep Cost	-	54 167	733	1,022	3	- 0	-	-	(44)	
various	Replace Tertiary Network Vault 6188		190	(28)	- 1,022	-		-		- (44)	
	Replace Tertiary Network Vault 6122		155	-	-	-	-	-	-	-	
Waltham	Relocate Overhead to Underground	-	-	5	294	473	102	0	(89)	(167)	
Various	Station 75 Neutral Transformer	-	-	75	86	2	-	-	-	-	
	Paging System	-	5	-	0	0	-	-	-	-	
	Information Service Indirect Engineering	-	3,949	4	-	-	-	-	-	-	
	Replace Mag Tape	-		-	-	-	-	-	-	-	
	Equipment & Tools	- (2)	1 0 201	-	-	- 0	-	-	-	-	
Various	Like for Like Underground Paving	(2)	8,301 806	335 1,406	5 2		-	-	-	-	
Various	Like for Like Overhead		1,798	155	(18)			-		-	
Various	Indirect Engineering		2,377	-	- (10)	- (10)	-	-	-	-	
	Indirect Engineering & Supervision	-	2,618	3	0		-	-	-	-	
	Equipment & Tools	-	14	(1)	-	-	-	-	-	-	
	Indirect Engineering	-	4,968	-	-	-	-	-	-	-	
	Purchase of Distribution Transformers	-	4,305	8,231	341	-	-	-	-	-	
	System Meters	-	-	<u> </u>	-	-	-	-	-	-	
	Buildings/Alterations	-	-	1	-	-	-	-	-	-	
	Service Equipment Woburn Service Center Shut Down	-	-	3 4	-	-	-	-	-	-	
	Overhead Customer Work Order			39	-	-	-	-	-	-	
	Purchase of Miscellaneous	-		11	-	-	-	-	-	-	-
Various	Cutoffs/Restorations	-	-	(181)	(63)	246	188	(469)	-	-	
Somerville/Waltham	Replace Station 47-2	-	-	54	67		-	-	-	-	
Somerville/Waltham	Replace Station 47-2	-	-	188	139	109	4	-	-	-	
Various	Replace Transformer Station 211	-	-	294	2,214	45	1	-	-	-	
	Establish Tertiary Network Vault 6196	-	-	154	16		-	-	-	-	
	Establish Secondary Network Vault Station 427	-	-	30	8		-	-	-	-	
	Split Fiber Main Replacement	-	-	135	-	0	-	-	-	-	
Various	Retire Transformer Secondary Network Vault 24 Police & Paving	-	-	3,356	2,461	2,696	-	-	-	-	
various	Distribution Transformers			163	40			-	-	-	
	System Meters		-	-	-	-	-	-	-	-	
	Survey & Records Supervisor Indirects	-	-	6,180	-	-	-	-	-	-	
Various	Preliminary Capital Engineering Indirect	-	-	277	393	66	35	43	-	-	
	Cust Div Buildings	-	-	154	55		-	-	-	-	
Mass Ave	Customer Distribution Street Work	-	-	3,645	5,873	125	(26)	13	-	-	
	Customer Distribution Station	-	-	980	210	1	0	-	-	-	
Various	Street Lighting	-	-	273	92		1	-	-	-	
Variana	System Distribution Station work	-	-	119	62	- 422	-	-	- (16)	-	
Various Mass Ave	System Distribution Street Work Secondary Network Vault - 404	-	-	13,362 10	1,485 123	433	0	-	(16)	-	
IVIASS AVE	Secondary Network Vault - 404 Secondary Network Vault - 415		-	16	287	-	-	-	-	-	
	Establish Station 414	-	_	49	23		-	-	-	-	
	Retire Secondary Network Vault 57 A&B	-	-	293	(107)		-	-	-	-	
	Establish Tertiary Network Vault 6201	-	-	112	234	1	-	-	-	-	
	Replace Secondary Network Vault 34	-	-	-	94	-	-	-	-	-	
	Implement Reliability Center Maintenance	-	-	85	58		-	-	-	-	
/arious	Galen St Reconductoring Watertown	-	-	-	312		1	-	-	-	
	Replace Aerial Cable	-	-	75	9		-	-	-	-	
	Secondary Network Vault - 387	-	-	133	-	-	-	-	-	-	
Mass Ave	Establish Tertiary Network Vault 6200	-	-	30	112		-	-	-	-	
Mass Ava	Establish Tertiary Network Vault 6199	-	-	100	24		- 4	-	-	-	
Mass Ave Mass Ave	Convert Station 324 - Station Work Convert Station 324 - Street Work	-	-	1 111	240		0	- 1	-	-	
IVIASS AVE	Re-Establish Secondary Network Vault 390B		-	1,111	53		-	- 1	-	-	
	Replace Tertiary Network Vault 67		-	145	- 55	0	-	-		-	
Mass Ave	Establish Tertiary Network Vault - Courthouse		-	4	322		-	-	-	-	
	Establish Tertiary Network Vault 6198	-	-	46	211		-	-	-	-	
Mass Ave	Convert Station 10 - Street Work		-	1,415			0		-	-	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Coming Area	DECC	1004	1005	1006	1007	1000	1000	2000	2004	2002	2002
Service Area Mass Ave	DESC Convert Station 10 - Station Work	1994	1995	1996 11	1997 91	1998 7	1999	2000	2001	2002	2003
Various	Improve Reliability - Needham	-	-	109	99	17		-	-	-	
Mass Ave	Establish Tertiary Network Vault 6203	-	-	-	-	116	0	-	-	-	-
Various - West	Hopkinton Station 126 - Street Work	-	-	11	10	988	64	0	-	-	-
Various	Station 479 - station Work	-	-	36	-	-	-	-	-	-	-
	Storm Keep Cost	-	-	14	7	-	-	-	-	-	-
Various	Keep Cost	-	-	-	14	1	14	1	-	-	-
Walpole	Act of Public Authority - Underground Westwood	-	-	265	516	(10)	0	-	(411)	(143)	
Mass Ave	Establish Tertiary Network Vault 6197	-	-	-	358	3	1	-	-	-	-
Mass Ave	Convert Station 8 - Station Work	-	-	1	5	8	29	-	-	-	-
Mass Ave	Convert Station 8 - Street Work	-	-	1,935	2,007	73	2	0	3	-	-
Mass Ave	Convert Station 283 - Station Work	-	-	609	(609)	7	-	-	-	-	-
Mass Ave	Convert Station 283 - Street Work	-	-	3,547	1,747	16	8	-	-	-	-
Mass Ave	Convert Station 306 - Station Work	-	-	7	5	26	2	2	-	-	-
Mass Ave	Convert Station 306 - Street Work	-	-	5,949	2,258	78	13	-	-	-	-
Mass Ave	Convert Station 340 - Station Work	-	-	2 505	1.052	20	62	-	- 1	-	-
Mass Ave	Convert Station 340 - Street Work	-	-	3,505	1,053	45	3	-	1	-	-
Various	Retire Hardware/Software Purchase Vehicle	-	-	46	-	-	-	-			
	Lab Equipment	-	-	99	- 0	-	-	-		-	-
	Real Estate	-	-	71	- 0	-	-			-	
	Plant Adjustment		-	233				-		-	
Mass Ave	Establish Secondary Network Vault 436	_	-	-	88	162	39	3	-	-	_
Various	Split Fiber Main Replacement	-	-	-	138	104	-	-	-	_	_
1.0	Split Fiber Main Replacement	-	-	-	50	-	-	-	-	-	_
	Establish Secondary Network Vault 549	-	-	-	84	-	-	-	-	-	-
Mass Ave	Establish Secondary Network Vault 386	-	-	-	1	91	1	-	-	-	-
Various	NYNEX To Fiber Conversion	-	-	-	477	27	8	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6204	-	-	-	1	6	1	-	-	-	-
Mass Ave	Establish Secondary Network Vault 589	-	-	-	9	4	1	-	-	-	-
Mass Ave	Establish Secondary Network Vault 582	-	-	-	178	(4)	1	-	-	-	-
Mass Ave	Convert Station 454 Street Work	-	-	-	2,284	946	257	39	-	-	-
Mass Ave	Establish Tertiary Network Vault 6205	-	-	-	100	3	1	-	-	-	-
	System Event Track	-	-	-	126	-	-	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6178	-	-	-	-	99	68	-	-	-	-
Mass Ave	Tertiary Network Vault 6195	-	-	-		0	-	-	-	-	-
	Tertiary Network Vault 641D - replacement	-	-	-	1		-	-	-	-	-
Mass Ave	Establish Secondary Network Vault 301B	-	-	-	-	4	-	-	-	-	-
Mass Ave	Establish Secondary Network Vault 441	-	-	-	- 042	23	89	-	-	-	-
Mass Ave	4KV Somerville Primary Network Unit Street Work		-	-	843	261	2	-	- 70	-	-
Various	Fiberoptic Expansion Line Transformers		-		8,308	234			70	-	5,452
Mass Ave	Survey & Records		-		8,511	510	87	-		-	5,452
Various	Preliminary Engineering	-	-	-	230	(0)	-	-	-	-	
Various	Customer Distribution Street Work	-	-	-	2,570	154	(19)	7	(1)	-	
Various	Customer Distribution Station	-	-	-	413	9	2	-	- (1)	-	
Various	Street Lighting	_	-	-	146	28	1	0	-	-	_
Various	System Distribution Station Work	-	-	-	59	13	2	-	-	-	_
Various	System Distribution Street	-	-	-	11,227	500	23	-	-	-	-
Various	System Distribution Street	-	-	39	-	-	-	-	-	-	-
Various	Survey & Records	-	-	-	2,326	2,463	856	19	4	-	-
Mass Ave	4kv Upgrade Roxbury	-	-	-	656	4	0	-	-	-	-
Mass Ave	Establish Secondary Network Vault 447	-	-	-	-	8	136	-	-	-	-
Various	Station 450 Sound Walls	-	-	-	131	4	0	-	-	-	-
Mass Ave	Establish Network Vault 419	-	-	-	161	3	-	-	-	-	-
Mass Ave	Replace Transformer Secondary Network Vault 82	-	-	-	0	1	-	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6206	-	-	-	2	224	-	-	-	-	-
	B-D St. Ex-Haul Rd	-	-	-	5	0		-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6207 A&B	-	-	-	3	144	1	-	-	-	-
	Upgrade Transformer Secondary Network Vault 388	-	-	-	0	-	-	-	-	-	-
	Secondary Network Vault 231 Increase Transformer Size	-	-	-	69	-	-	-	-	-	-
Mass Ave	Secondary Network Vault 90 Failure	-	-	-	-	38	-	-	-	-	-
Mass Ave	Establish Secondary Network Vault 224A Arch St	_	-	_	9	30	0	-	-	-	-

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Comice Area	DECC	1004	1005	1006	1007	1000	1000	2000	2004	2002	2002
Service Area Mass Ave	DESC Establish Tertiary Network Vault 6208	1994	1995	1996	1997 0	1998 186	1999 0	2000	2001	2002	2003
Various	Install Network Transformer		-		-	60	3		-	-	
Mass Ave	Replace Network Transformer	-	-	-	-	79	2	-		-	-
Mass Ave	Secondary Network Vault 567	-	-	-	-	10	17	-	-	-	-
Mass Ave	Secondary Network Vault 211	-	-	-	-	5	1	-	-	-	_
Mass Ave	Establish Tertiary Network Vault 6202	-	-	-	-	155	3	-	-	-	-
Mass Ave	Establish Secondary Network Vault 481	-	-	-	-	182	0	-	-	-	-
Mass Ave	Establish Secondary Network Vault 452 A&B	-	-	-	-	0	-	-	-	-	-
Mass Ave	Secondary Network Vault 37 Changeout	-	-	-	-	3	-	-	-	-	-
Mass Ave	Secondary Network Vault 56 Changeout	-	-	-	-	1	106	1	-	-	-
Various	Police	-	-	-	-	1,510	13	24	21	-	-
Various	Transformers	-	-	-	-	4,925	(65)	-	-	-	-
Various	Preliminary Engineering	-	-	-	-	221	78	-	-	-	-
Mass Ave	Convert Primary Network Unit 311 - Roxbury	-	-	-	-	1,926	236	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6209	-	-	-	-	269	1	24	-	-	-
Mass Ave	Improve Circuits	-	-	-	-	278 272	526 74	0	-	-	-
Mass Ave Mass Ave	13.8kv Brookline Village Convert Primary Network Unit 32	-	-	-	-	2,193	49	- 2	104	- 23	
	Convert Circuits Station 293		-	-	-	1,046	301	- 2	- 104		12
Mass Ave Mass Ave	Remove Secondary Network Vault 244 A&B		-		-	205	25	1	-	-	- 12
Various	East Fifth Split Fiber Main Conversion		-	-	-	205	(0)	- '	-	-	
Various	Split Fiber Main Replacement	_	_			385	15	-		_	-
Somerville/Waltham	Convert Step Down Transformer	_	-	_	-	493	12	_	_	-	_
Mass Ave	Convert 284-01	-	-	-	-	374	1	-	-	-	_
Various	A Street		-	-	-	116	299	62	1	-	
Waltham	US Gov National Park	-	-	-	-	4	1	0	-	-	-
Walpole	Reebok HQ	-	-	-	-	(86)	62	38	-	-	-
Various	Station 450 Expansion	-	-	-	-	7	1,715	1,953	2,158	118	-
Mass Ave	120 South Hampton St	-	-	-	-	2	-	-	-	-	_
Mass Ave	88 Exeter St - Boston	-	-	-	-	1	-	-	-	-	-
Waltham	Burlington Rd - Bedford	-	-	-	-	45	171	-	-	-	-
Mass Ave	Establish secondary Network Vault 200	-	-	-	-	1	177	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6211	-	-	-	-	-	270	-	-	-	-
Mass Ave	Establish Tertiary Network Vault 6212	-	-	-	-	1	229	-	-	-	-
Mass Ave	Establish New 496-H3	-	-	-	-	794	-	-		-	-
Various	Station 250 Doble Institute	-	-	-	-	63	166	16	1	-	-
Various	Hazeltine Monitoring	-	-	-	-	130	198	243	267	-	
Various	Street Light Work	-	-	-	-	44	(14)	-	-	-	-
Various	SCADA Y2K	-	-	-	-	594	(18)	-	-	-	-
Mass Ave	New Customer - Everett St _ Brighton	-	-		-	171 65	0 88	- 11	-	-	-
Mass Ave Mass Ave	New Customer - Bay State Rd New Customer - Tremont St	-	-	-	-	7	- 00		- 4	58 -	-
Mass Ave	Secondary Network Vault 582		-			34	1		-	-	
Mass Ave	Station 481	-	-			153	0	-	-	-	
Mass Ave	New Customer State St	-	-	-	_	0	-	-	-	-	-
Mass Ave	Secondary Network Vault 436	-			-	42	59	-	-	-	-
Mass Ave	Tertiary Network Vault 6208	_	-	_	-	120	22	7	_	-	_
Mass Ave	New Customer - Lafayette PI		-	-	-	86	8	-	-	-	_
Waltham	Act of Public Authority - Overhead to Underground S. Loomis	-	-	-	-	4	-	6	-	-	-
Waltham	MWRA Pumping	-	-	-	-	171	(41)	-	-	-	-
Waltham	Villages	-	-	-	-	254	9	-	-	-	-
Waltham	Cronins Landing	-	-	-	-	88	-	-	-	-	-
Waltham	Waltham Woods	-	-	-	-	285	36	-	-	-	-
Waltham	MWRA Shaft SA Temp	-	-	-	-	(91)	47	5	-	-	-
Waltham	Boston College	-	-	-	-	171	15	3	-	-	-
Waltham	Pine Meadows Carlisle	-	-	-	-	26	1	-	-	-	-
Waltham	Astra Corp	-	-	-	-	8	388	2	-	-	-
Waltham	Cabot St - Overhead & Underground	-	-	-	-	1		-	-	-	-
Somerville	Altron Inc - Woburn	-	-	-	-	89	4	0	-	-	-
Somerville	Station 487 - Sun Micro	-	-	-	-	153	2		-	-	-
Somerville	Somerville Housing Authority - Mystic	-	-	-	-	14	12	1	-	-	-
Framingham	175 Crossing Blvd. Framingham Leonard Morse Hospital - Framingham	-	-	-	-	140	-	-	-	-	-
Framingham	Leonard worse Hospital - Framingham	-	-	-	-	0	- 12	-	-	-	-

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Framingham	Staples Crossing Blvd - Framingham	-	-	-	-	115	0	-	-	-	-
Framingham	The Sanctuary - Cottage St. Natick	-	-	-	-	277	2	(28)	3	12	-
Mass Ave	New Customer 1601 Wash St	-	-	-	-	11	118	53	-	-	-
Waltham	Sun Micro System	-	-	-	-	(110)	88	19	-	-	-
Waltham Waltham	Raytheon 2nd Line Overhead to Underground Bedford & Lexington	-	-	-	-	127	9	- 2	-	-	-
Waltham	Overhead to Orderground - Bedford	-	-	-	-		0			-	
Mass Ave	Planet Hollywood	-	-			11	164	(1)	1	1	
Mass Ave	BU Medical Center	-	-			1	39	1		- '	
Mass Ave	25 Huntington Ave	-	-	-	_	3	(37)	11	-	-	
Mass Ave	Underground Circuit Emergency Replacement	-	-	_	-	2,497	327	2	-	-	
Mass Ave	Underground Reliability Improvements	-	-	_	_	297	28	0	-	_	
Mass Ave	Overhead Reliability Improvements	-	-	-	-	837	204	4	18	10	
Mass Ave	Overhead Reliability Improvements	-	-	-	-	231	23	0	-	-	
Mass Ave	Station Breaker/Transformer Failure	-	-	-	-	597	154	12	-	-	
Somerville	Underground Corrective/Emergency Replacement	-	-	-	-	1,056	36	-	-	-	
Somerville	Underground Reliability Improvements Somerville/Waltham	-	-	-	-	82	45	4	-	-	
Somerville	Overhead Corrective/Emergency	-	-	-	-	926	101	3	16	13	1
Somerville	Overhead Reliability Improvements	-	-	-	-	139	62	6	-	5	
Various	Station Breaker Transformer Failure	-	-	-	-	134	130	5	8	-	
Framingham/Walpole	Underground Corrective/Emergency Replacement	-	-	-	-	344	35	4	-	-	
Framingham/Walpole		-	-	-	-	1	0	-	-	-	
Various	Overhead Corrective/Emergency	-	-	-	-	384	70	7	5	15	
Various	Overhead Reliability Improvements	-	-	-	-	787	(143)	1	-	-	
Mass Ave	Underground Keep Cost Mass	-	-	-	-	555	30	-	-	(1)	
Mass Ave	Keep Cost - Mass Ave	-	-	-	-	79	7	-	- 1 100	-	
Mass Ave	New Customer - Mass Ave	-	-	-	-	1,530	1,317	754	1,103	177	
Mass Ave	Residential Development - Mass Ave	-	-	-	-	11	30	30	-	-	
Mass Ave Mass Ave	Temporary Customer- Mass Ave Volume Sales New Customer - Mass Ave	-	-	-	-	731	(32) 342	60 114	- 8	- 1	
Mass Ave	Volume Sales Temporary Customer Mass Ave	-	-	-		(7)	(2)	24		- '	
Mass Ave	Volume Sales Cable TV Mass Ave	-	-			- (7)	0	1		-	
Mass Ave	MASS AVE FSA Station Improvement	_	_			78	60	1		-	
Somerville	New Customer Somerville	_	-	_		635	497	14	_	-	
Somerville	Residential Development Somerville	-	-	_	_	140	177	6	_	-	
Somerville	Temporary Customer Somerville	-	-	-	-	(13)	(71)	3	33	-	
Somerville	Volume Sales - New Customer Somerville	-	-	-	-	518	177	13	-	-	
Somerville	Volume Sales Temporary Customer Somerville	-	-	-	-	(13)	(2)	0	-	-	
Somerville	Volume Sales Cable TV Somerville	-	-	-	-	- 1	5	10	3	-	
Somerville	Volume Sales Single Phase Service Underground Somerville	-	-	-	-	-	0	0	-	-	
Somerville	Volume Sales Single Phase Service Overhead Somerville	-	-	-	-	-	-	1	-	-	
Framingham	New Customer Framingham	-	-	-	-	192	106	21	-	-	
Framingham	Residential Development Framingham	-	-	-	-	488	309	67	18	-	
Framingham	Temporary Customer Framingham	-	-	-	-	14	5	-	1	-	
Framingham	Volume Sales New Customer	-	-	-	-	240	162	10	-	-	
Framingham	Residential Customer - Framingham	-	-	-	-	5	-	-	-	-	
Framingham	Volume Sales Temporary Customer Framingham	-	-	-	-	-	(1)	-	-	-	
Framingham	Underground Services - Framingham	-	-	-	-	- 540	0	1	-	-	
Mass Ave	Street Light Add/Relocate	-	-	-	-	548	85	(11)	-	-	
Various	Street Light Modernization	-	-	-	-	233	(19)	(2)	- 1	-	
Mass Ave	Street Light Removals	-	-	-	-	28	(18)	(33)	1	2	
Various Somerville/Waltham	Street light - No Current Replace Underground Keep Cost Somerville/Waltham	-	-	-	-	- 89	10	1	-	-	
Framingham/Walpole	Underground Keep Cost Framingham/Waltham	-	-	-	-	10	-	- 1		-	
Somerville/Waltham	Overhead Keep Cost Framingham/Waitham	-	-	-	-	150	- 6			(8)	
Various	Overhead Keep Cost Somerville/Waltham	-	-	-	-	183	19	1	(8)	(9)	
Various	Street Light Knock Downs	-	-	-	-	103	- 19		(0)	- (9)	
Mass Ave	C&S Minor System Improvements	-	-			3,860	2,403	382	74	13	
Mass Ave	C&S Minor System Improvements	-	-	_	-	743	826	13	- '4	-	
	Distribution Overheads	-	-			-	-	-	-	-	
	Plant Adjustment	-	-	_	-	-	-	-	(14)	-	
	Acts of Public Authority	-	-	-	-	-	-	-	- (14)	-	
	System Failures/Replacements	-	-	_	-	-	-	-	-	945	
Mass Ave	Underground Network Feeder Replacement	-	-	-	-	-	178	1	-	1	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Mass Ave	4KV Switch Replacement	-	-	-	-	-	597	14	1,096	759	58
Mass Ave	Underground 4kv Circuit Cable Replacement	-	141	-	-	-	-	-	-	-	
Mass Ave	4kv Switch Replacement	-	-	-	-	-	218	-	-	-	-
Mass Ave	4kV Switch Replacement	-	-	-	-	-	172	4	-	11	-
Mass Ave	Underground A/C Network Secondary Replacement	-	-	-	-	-	285	-	-	-	-
Mass Ave	Underground Transformer Failure Replacement		-		-	-	56 170	- 61	30	203	-
Mass Ave Mass Ave	Underground Minor Reliability Improvements - Mass Ave Keep Costs Mass Ave		-		-	-	375	580	445	347	10
Mass Ave	Overhead 4KV Equipment Replacement		-		-	-	65	0	16	-	-
Mass Ave	Overhead 14KV Equipment Replacement				-	-	32	1	- 10	-	
Mass Ave	Overhead Radial Second Replacement	-	_		_	-	24	1	1	-	
Mass Ave	Overhead Service Replace - Mass Ave	-	-	_	-	-	20	0		-	-
Mass Ave	Overhead Minor Reliability Improvement	-	-	_	_	52	27	2		-	_
Mass Ave	Overhead Keep Cost Mass Ave	-	-	-	-	-	34	58	56	(18)	(3
Waltham	Underground 4KV Cable Replacement	-	-	-	-	-	292	0	-	402	5
Waltham	Act of Public Authority Waltham	-	-	-	-	-	763	5	12	147	2
Waltham	Waltham keep Cost	-	-	-	-	-	107	1	60	99	2
Waltham	Underground Transformer Failure Replacement	-	-	-	-	-	6	-	-	-	-
Waltham	Overhead Circuit Walkdown Waltham	-	-	-	-	-	43	15	59	162	64
Somerville	Keep Cost Somerville	-	-	-	-	-	47	127	161	79	7
Walpole	Walpole Like for Like Replacement	-	-	-	-	-	103	6	351	1,127	97
Framingham	Framingham Like for Like Replacement	-	-	-	-	-	242	11	506	1,222	1,31
Somerville	Circuit Upgrades Somerville	-	-	-	-	-	59	2	315	1,518	49
Waltham	Overhead Service Replacement - Somerville/Waltham	-	-	-	-	-	63	-	-	-	
Waltham	Waltham Like for Like Replacement	-	-	-	-	45	80	1	677	1,581	1,33
Somerville	Overhead Keep Cost Somerville	-	-	-	-	-	59	68	60	35	(1
Various	Underground 4kv Circuit Cable Replacement	-	-	-	-	-	26	-	-	192	17
Framingham	Overhead Circuit Walkdowns Framingham	-	-	-	-	-	81	8	-	57	33
Various Various	Underground Radial Second Replace	-	-	-	-	-	7 17	-	-	-	-
Various	Underground Transformer Failure Replacement Underground Minor Reliability Improvements - West		-		-	-	7	-	- 2	- 3	-
Walpole	Keep Cost Walpole		-		-	-	12	85	157	50	(4
Various	Overhead 4KV Equipment Replacement	-	_		_	_	161	19	53	76	- (-
Various	Overhead 14KV Equipment Replacement	_	_		_	-	375	24	26	28	(1
Various	Overhead Radial Second Replacement	-	-		_	-	25	10	18	23	- '.
Various	Overhead Service Replacement Framingham/Walpole	-	-	-	-	-	13	-	-	-	-
Various	Overhead Minor Reliability Improvement	-	-	-	-	76	40	-	-	-	-
Framingham	Keep Cost Framingham	-	-	-	-	-	167	289	152	13	(9
Walpole	Overhead Circuit Walkdowns	-	-	-	-	-	-	389	6	30	15
Framingham	Construct Framingham Minor Improvement Street	-	-	-	-	-	-	264	362	465	36
Walpole	Construct Walp Minor System Improvement	-	-	-	-	-	-	-	141	411	26
Waltham	Construct Walt Minor System Improvrvements Line of Business Street	-	-	-	-	-	-	432	627	649	37
Various	Construct Walt Minor Sys Improvements Line of Business Station	-	-	-	-	-	-	-	8	-	-
Somerville	Capital for Construction Maintenance	-	-	-	-	-	-	30	131	43	-
Framingham	Maintenance Fram / Walp / Walth Line of Business	-	-	-	-	-	-	194	192	112	-
	Engineering Distribution Street	-	-	-	-	-	-	-	-	-	1,14
Various	Police / Paving	-	-	-	-	-	5,062	3,789	7,088	9,276	7,24
Various	Preliminary Auth Trans	-	-	-	-	-	165	103	732	47	0.50
	BECo Prelim Eng	-	-	-	-	-	- 0.400	-	- 1 100	1,214	2,56
Various	Records Ungardo Underground Residential Development	-	-	-	-	21	2,193 774	1,466	1,496	1,872	1,54
Mass Ave	Upgrade Underground Residential Development Convert 4Kv to 13.8 Circuit 323-04-06	-	-	-	-	64	519	74 168	25	60 18	-
Mass Ave Mass Ave	PAR Convert 430-1184		-		-	-	85	0	- 25	- 18	-
Mass Ave	Convert Emmanuel College		-		-	-	579	745	42	-	
Mass Ave	Convert Primary Network Unit 24		-		-	-	1,916	814	19	- 4	
Mass Ave	Convert Circuit 277-04	-	-		-	-	1,910	240	(3)	-	
Mass Ave	Convert Cricuit 277-04 Convert Primary Network Unit 25		-		-	-	1,375	1,705	294	121	
Mass Ave	Convert 516-08 & 468-07	-	-	-	-	-	1,459	6	-	-	_
Mass Ave	Convert 344-02	-	-		-	-	225	79	154	5	
Mass Ave	Convert Circuit 3603 loop system	-	-	-	-	-	102	60	173	353	
Mass Ave	Convert 4Kv 13.8Kv 6004,344-05	-	-		-	-	111	302	534	151	-
Mass Ave	Convert 139-09	-	-	-	-	-	111	83	374	5	-
Mass Ave	Convert Circuit 277-01	-	-	-	-	-	8	21	493	91	-
Mass Ave	Retire Station 469, Somerville	-	-	-	-	-	2,920	984	85	14	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Mass Ave	Convert 4Kv to 13.8Kv Circuit 4301,4307	1994	1995	1990	1997	1990	168	105	451	98	2003
Waltham	Station 285	_	_	-	-	-	76	223	724	277	
Various	Indus Model Construction	-	-	-	-	-	11	668	870	277	-
Mass Ave	Mass Ave Like for Like Replacement	-	-	-	-	-	1,433	3,515	5,323	6,517	5,6
Mass Ave	Overhead Corrective Maintenance - Mass Ave	-	-	-	-	-	121	381	517	484	
Mass Ave	Station Corrective Replacement - Mass Ave	_	_	-	-	-	186	1,744	650	52	
Mass Ave	Overhead Minor Reliability Improvement - Mass Ave	_	_	-	-	-	63	85	108	238	-
Mass Ave	Field Service Area1 System Capacity Improvements	_	_	-	-	-	58	66	162	991	
Somerville	Somerville Like for Like Replacement	_	_	-	-	-	392	1,310	2,234	1,392	1,8
Somerville	Overhead Corrective Maintenance - Somerville	-	-	-	-	-	416	599	680	538	
Various	Station Corrective Replacement - Somerville	-	_	-	-	-	67	32	600	(22)	-
Somerville	Overhead Minor Reliability Improvements Somerville Ops Distribution	-	-	-	-	-	4	62	16	126	
Various	Underground Corrective Replacement - West		_	_	-	-	71	767	339	101	
Various	Overhead Corrective Replacement - West			_	_		312	1,113	737	85	
Various	Station Corrective Replacement - West		<u> </u>	-	-	-	515	965	82	(937)	
Various			-	-	-	-	47	32	336	222	
	Overhead Minor Reliability Improvements - West Install New Transformer Sta. 470	-	-	-	-	-	- 47	1,122	1,582	48	
Various						-	-		1,582		
Framingham	Rebuild Underground Residential Development-Edgewater Apts, Worc.Rd	-	-	-	-			249		181	
Walpole	Extend Circuit 148-H3 Westwood	-	-	-	-	-	-	439	163	54	
Mass Ave	Relieve 548-92H	-	-	-	-	-	-	321	-	-	
Mass Ave	Increase Capacity East	-	-	-	-	-	-	-	383	28	
Waltham	Convert Step-down Area	-	-	-	-	-	-	- (75)	306	733	
Mass Ave	MWRA C-H Pumping Station, Brighton	-	-	-	-	-	-	(75)	-	63	
Mass Ave	New Balance Guest St, Brighton	-	-	-	-	-	-	54	34	10	
Mass Ave	BU New Station 508	-	-	-	-	5	97	294	78	28	
Mass Ave	Bland Plastic	-	-	-	-	1	368	28	95	6	
Mass Ave	Landmark Center	-	-	-	-	6	152	186	-	-	
Mass Ave	Laconia Condo	-	-	-	-	10	114	-	-	-	
Waltham	Establish Secondary Network Vault 57	-	-	-	-	-	(33)	2	1	-	
Framingham	Greenways Assisted Living	-	-	-	-	-	122	14	-	-	
Framingham	Framingham Triangle	-	-	-	-	-	18	14	2	-	
Walpole	EMC Corp Hopkinton	-	-	-	-	-	(9)	74	-	-	
Framingham	Metro West Hospital	-	-	-	-	-	0	-	-	-	
Mass Ave	Establish Secondary Network Vault 564	-	-	-	-	-	20	0	-	-	
Mass Ave	Establish Tertiary Network Vault 6217 A&B	-	-	-	-	-	37	3	-	-	
Mass Ave	Mission Main Phase 1	-	-	-	-	-	-	31	13	-	
Mass Ave	Establish Secondary Network Vault 509	-	-	-	-	-	4	-	-	-	
Mass Ave	Establish Secondary Network Vault 57	-	-	-	-	-	2	1	-	-	
Mass Ave	BV Development / Underground Guest St.	-	-	-	-	-	2	(96)	26	-	
Waltham	Riverside Center	-	-	-	-	-	0	-	-	-	
Mass Ave	Butler St Relocation - MBTA	-	-	-	-	-	-	(82)	(146)	1	
Somerville	Partners Health	-	-	-	-	-	-	-	- 1	-	
Mass Ave	63-67 Endicott St Boston	-	-	-	-	-	203	164	_	_	
Mass Ave	Markley Stearns 1 Summer St, Boston	-	-	-	-	-	203	358	9	4	
Mass Ave	MDA/Milennium Place 601 Wash St Boston	-	-	-	-	-	-	440	39	(12)	
Mass Ave	Zade 112 Canal St, Boston	-	-	-	-	-	-	206	97	194	
Walpole	Walpole High School	_	_	-	-	-	22	107	64	16	
Framingham	EMC 117 South St, Hopkington	_	_	-	-	-	17	394	67	-	
Waltham	Customer Special Waltham	-	_	-	-	-	- ''	-	56	87	
Various	Indus Model New Customer			_	_		87	8	280	78	
Various	Indus Model Temporary Customer		 	-	-	-	1	2	-	-	
Various	Indus Model Remove Service	-	-	-	-	-	0	2	-		
Various	Indus Model Cable TV		-	-	-	-	-	4	4	-	
Various Mass Ave	Indus Model Overhead Services/Underground Services Indus Model Customer Spec Authorization		-	-	-	-	-		1 78	132	
IVIASS AVE									- 78	132	
Various	4Kv Oil Switch Replacement	-	-	-	-	-	-	-			
Various	Con Electric Distribution Asset Strategy	-	-	-	-	-	-	-	119	465	
	Construct Phase 2 - 122 Line Rebuild	-	-	-	-	-	-	-	33	-	
	Station Transformer Corrective Replacement Station 59	-	-	-	-	-	-		6	1	
Mass Ave	Station Breaker/Transformer - Mass Ave	-	-	-	-	-	119	4	-	-	
Various	Station Breaker/Transformer - Somerville/Waltham	-	-	-	-	-	-	16	-	-	
Various Mass Ave	Station Breaker/Transformer Fra/WP	-	-	-	-	-	210	2		-	
	Street Lighting - Mass Ave	_	-	-	-	-	- 1	(2)	16	14	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Mass Ave	Residential Development - Mass Ave	-	1995	1990	-	1990	26	2000	156	76	2003
Mass Ave	New Temporary Service - Mass Ave	-	-	-	-	_	64	148	339	389	
Mass Ave	New Customer Mass Ave	-	-	-	-	3	813	548	130	116	
	New Customer	-	-	-	-	-	-	-	-	30	-
Mass Ave	Residential Customer Mass Ave	-	-	-	-	36	61	104	118	111	
Mass Ave	New Customer Mass Ave	-	-	-	-	-	3	1	3	-	-
Mass Ave	CATV Mass Ave	-	-	-	-	3	53	27	19	21	
Mass Ave	Overhead & Underground Services - Mass Ave	-	-	-	-	59	43	58	34	296	
Mass Ave	Underground Services - Mass Ave	-	-	-	-	22	12	13	-	-	
Waltham	New Customer Waltham	-	-	-	-	-	-	761	2,046	1,780	2,2
Waltham	Residential Development - Waltham	-	-	-	-	-	-	169	126	145	
Waltham	New Temporary Service Waltham	-	-	-	-	-	-	85	11	11	
Waltham	Residential Customer Waltham	-	-	-	-	-		72 16	62 7	111	
Waltham Waltham	CATV Waltham Overhead & Underground Services Waltham	-	-	-	-			63	54	47	
Waltham	Overhead & Underground Services - Waltham Street Light Waltham Customer Operations	-	-	-	-	-	-	1	1	2	
Mass Ave	Station Improvement - Mass Ave	-	-	-	-	-	7			-	
Somerville	New Customer Somerville	-	-	-		1	911	3,787	1,221	1,349	1,3
Somerville	Residential Development Somerville	-	-	-	-	0	214	41	136	75	1,0
Somerville	New Temporary Service Somerville	-	-	-	-	-	67	27	36	6	
Somerville	New Customer Somerville	-	-	-	-	19	543	1	20	8	
Somerville	Residential Customer Somerville	-	-	-	-	43	74	42	17	30	
Somerville	New Temporary Service Somerville	-	-	-	-	-	5	0	-	-	
Somerville	CATV Somerville	-	-	-	-	42	44	10	10	16	
Somerville	Overhead Services/Underground Service Somerville	-	-	-	-	41	65	55	25	23	
Somerville	Underground Service Somerville	-	-	-	-	39	36	-	-	-	
Walpole	New Customer Walpole	-	-	-	-	-	-	401	682	773	1,0
Walpole	Residential Development Walpole	-	-	-	-	-	-	4	187	152	
Walpole	New Temporary Service Walpole	-	-	-	-	-	-	11	16	3	
Walpole	Residential Customer Walpole	-	-	-	-	-	-	29	32	18	
Walpole	CATV Walpole	-	-	-	-	-	-	19	1	-	
Walpole	Overhead Services/Underground Service Walpole	-	-	-	-	-	-	56	80	61	
Walpole	Street Light Walpole Customer Operations	-	-	-	-	- 45	-	3	3	7	_
Framingham	New Customer Framingham	-	-	-	-	15	555 158	744 780	983 448	792 283	7
Framingham Framingham	Residential Development Framingham New Temporary Service Framingham	-	-	-	-	- 3	2	31	27	10	
Framingham	New Customer Framingham	-	-	-		1	202	185	8	-	
Framingham	Residential Customer Framingham		-	-	-	15	27	20	16	38	
Framingham	New Temporary Service Framingham	-	_	-	_	-	15	1	-	-	
Framingham	CATV Framingham	-	-	-	-	3	32	46	1	2	
Framingham	Overhead Service Framingham	-	-	-	-	30	68	97	105	72	
Framingham	Underground Service Framingham	-	-	-	-	88	86	2	-	-	
Framingham	Street Lights Framingham COPS	-	-	-	-	-	-	0	-	-	
Somerville	Street Lights Somerville COP	-	-	-	-	-	-	6	3	-	
	Street Light Install & Relocate	-	-	-	-	8	178	558	1,116	585	
Various	Modernizations	-	-	-	-	4	39	(2)	-	-	
Mass Ave	Removals	-	-	-	-	5	3	(2)	-	-	
Various	No Current Minor St Light Replace	-	-	-	-	539	318	24	-	-	
Various	System Planning BECo	-	-	-	-	3,619	3,230	1,991	1,750	292	2
Mass Ave	Minor Capital Improvements Mass Ave	-	-	-	-	15	2,818	1,174	7,900	1,377	1,1
Various	Minor Capital Improvements Stations BECo	-	-	-	-	-	172	464	873	5,066	3,0
Mass Ave	Construction Mass. Ave. Act of Public Authority	-	-	-	-	0	494	850	1,249	545	
Mass Ave	Split Fiber Main Replacement	-	-	-	-	11	2,384	3,356	6,932	14,661	4,2
Mass Ave Somerville	Circuit Upgrades Mass Ave Minor System Improvement Somerville	-	-	-	-	1	860 747	257 391	48 21	53 762	-
	Walpole Act of Public Authority	-	-	-	-	-	- 147	11	83	109	
Walpole Various	Technical Support various locations	-	-	-	-	5,426	6,253	9,061	9,139	13,154	17,7
Somerville	Zerolife - Various	-	-	-	-	5,420	0,200	9,061	9,139	13,134	17,1
OOTHEI VIIIE	BECo Facilities Construction	-	-	-	-		-	-	479	-	
	Atlantic Ave	-	-	-			-	-	274	-	
	Various Projects		-	-	-	-	-	-	-	-	
	Various Projects	-	-	-	-	-	-	361	-	-	
	Various Projects	-	_	(381)	67	65	(1,771)	(680)	1,258	-	
	Various Projects	-	_	-	-	-	- (.,)	-	(467)	1,098	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Install Conduit Huntington Avenue	-	-	-	-	-	-	-	-	369	
	Cambridge Trust Co, Cambridge St, Boston New Customer 111 Huntington Ave.	-	-	-	-	-	-	-	-	55 -	
	Michelangelo St, Secondary Network Vault 496	-	-	-	-	-	-	-	-	46	
	EMC Engineering Building Hopkinton	-	-		-	-	-	-	-	86	
	131 Dartmouth St, Tertiary Network Vault 6218		_			_		_	-	353	
	Overhead to Underground Canton Center		-	_	-	-	-	-	_	19	
	Overhead to Underground - Westwood Center	-	-	_	-	-	-	-	-	525	
	Overhead to Underground Natick Center	-	-	-	-	-	-	-	-	166	
	Dedicated Line to Logan Airport	-	-	-	-	-	-	-	-	169	
	Install Inoperative Relays at Stations	-	-	-	-	-	-	-	-	1,646	
	Purchase 115kV/14kV Mobile Transformer	-	-	-	-	-	-	-	-	871	
	Retire PNU28 20N28, 23N28X/Y, 23N3	-	-	-	-	-	-	-	-	50	
	4kV West Roxbury 284-08	-	-	-	-	-	-	-	-	(133)	
	Increase Capacity W. Roxbury / Brookline	-	-	-	-	-	-	-	-	2,028	
	Reconfigure 304-77H	-	-	-	-	-	-	-	-	1,135	
	REIT Two Line Station	-	-	-	-	-	-	-	-	258	
	Internet 30 Innerbelt Road	-	-	-	-	-	-	-	-	2	
	Rebuild Underground Real Estate Development - Chapel Hill	-	-	-	-	-	-	-	-	176	
	Rebuild Underground Real Estate Development -Lord Chesterfield		-	-	-	-	-	-	-	47	
	Underground Real Estate Development Rebuild Nagog Woods	-	-	-	-	-	-	-	-	38	
	System Spare Transformer Relocate Conduit, MBTA Wash. St		-	-	-	-	-	-	-	1,063	
		-	-	-	-	-	-	-	-	726 241	
	Establish Tertiary Network Vault 6228 @ 10 Boylston St	-	-	-	-	-	-	-	-	1,848	
	Increase Capacity @ Station # 148 Increase Capacity Trapelo Rd #450		-	-	-	-	-	-	-	108	
	Install 3rd Transformer Station #450		-			-	-	-	-	2,023	
	Establish Secondary Network Vault 566 Chauncy St Boston	 	-			-	-	-	-	67	
	OH Reconductor Circuit Walpole	-	-	_	-	-	-	-	-	7	
	Provide New Supply Guiterrez Constr	-	-	-	-	-	-	-	-	122	
	Increase Capacity Station 148 Street Work	-	-	_	-	-	_	-	-	256	
	Purchase of Tools Field Support	-	-	-	-	-	-	-	-	115	
	Cathodic Protection	-	-	-	-	-	-	-	-	7	
	Relieve Sudbury Station #342	-	-	-	-	-	-	-	-	244	
	Relieve Woburn Station #375	-	-	-	-	-	-	-	-	43	
	Relieve Natick Line Group	-	-	-	-	-	-	-	-	384	
	Relieve Saxonville Line Group	-	-	-	-	-	-	-	-	143	
	Improve Reliability Circuit 455-H1	-	-	-	-	-	-	-	-	167	
	Reconfigure Circuit 146-H2	-	-	-	-	-	-	-	-	146	
	Relieve Circuit 148-H3	-	-	-	-	-	-	-	-	203	
	Improve Reliability of Circuit 23-H2	-	-	-	-	-	-	-	-	189	
	Replace Underground Real Estate Development Cable in Indian Hill	-	-	-	-	-	-	-	-	143	
	4Kv Modernization Project-13N29		-	-	-	-	-	-	-	120	
	4Kv Modernization Project-14N29	-	-	-	-	-	-	-	-	145	
	4Kv Modernization-17N29	-	-	-	-	-	-	-	-	92 188	
	Replace Underground Real Estate Development Amberwood Drive BU New Indoor Track		-	-	-	-	-	-	-	153	
	Convert section 17N33 Somerville		-	-	-	-	-	-	-	670	
	Convert section 17133 Somerville Convert section 26N33 Somerville		-			-	-	-	-	82	
	Reconductor 250-1N81H		-	_	-	_	_	-	-	235	
	Replace Underground Real Estate Development Cable on Oak Park Drive	-	-	_	-	_	-	-	-	42	
	Retire and Relocate Transformer - Station 106	-	-	_	-	-	-	-	-		
	Relocate Overhead Lines to Underground	-	-	-	-	-	-	-	-	116	
	Increase Capacity Secondary Network Vault 46 Newbury St	-	-	-	-	-	-	-	-	251	
	Establish Secondary Network Vault 233 Newbury St	-	-	-	-	-	-	-	-	346	
	Breaker Replacements Stations #329 & 250	-	-	-	-	-	-	-	-	10	
	Relieve Chelsea-East Boston Region	-	-	-	-	-	-	-	-	593	
	Convert 4Kv Underground to 13.8Kv Circuit 293-03	-	-	-	-	-	-	-	-	160	
	4Kv South Boston Circuit 139-08	-	-	-	-	-	-	-	-	543	
	Convert 4Kv Underground to 13.8Kv Circuit 143-05	-	-	-	-	-	-	-	-	483	
	Transfer SO End Network #492-#106	-	-	-	-	-	-	-	-	116	
	Convert 4Kv Underground Loop Circuit 396-08 Relieve Boston Medical Line Group	-	-	-	-	-	-	-	-	363 222	

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Convert 4Kv Underground to 13.8Kv Circuit 5203	-	-	-	-	-	-	-	-	3	
	Convert 4Kv Underground to 13.8 Kv Circuit 5210 Relieve NE Medical+Boston Herald LG		-	-	-	-	-	-	-	5 454	
	Relieve South Postal Annex LG	-	-	-	-	-	-	-	-	226	
	Relieve Park Plaza LG		-			-	-	-		264	
	Convert 4Kv to 13.8Kv Circuit 139-01	_	-	_	-	-	-	-	-	798	
	New Duct, Summer Street	-	-	-	-	-	-	-	-	-	
	Convert 4Kv Underground to 13.8Kv Circuit 4308	-	-	-	-	-	-	-	-	6	
	Station # 329 Duct Bank Projects	-	-	-	-	-	-	-	-	4,002	
	Convert 4Kv to 13.8Kv Circuit 3615	-	-	-	-	-	-	-	-	551	
	Convert 4Kv to 13.8Kv Circuit 506-12		-	-	-	-	-	-	-	691	
	Convert Centre Street 4Kv to 13.8Kv	-	-	-	-	-	-	-	-	165	
	Convert Washington Sq 4Kv to 13.8Kv	-	-	-	-	-	-	-	-	100	
	New Station 496 Duct Bank	-	-	-	-	-	-	-	-	6	
	Reconductor Line 13-1416XY	-	-	-	-	-	-	-	-	112	
	Remote Terminal Unit Upgrade Many Stations Station #455 People of 15Ky Breakers		-	-	-	-	-	-	-	329 229	
	Station #455 Replace 115Kv Breakers 115kv Breaker Replacement Somerville	-	-	-	-	-	-	-	-	131	
	CSPEC Nahatan St Westwood Ma	-	-			-	-	-	-	2	
	Distribution Infrastructure L Street to K Street Stations	-	-	_	-	-	-	-	-	-	
	Continue Hazeltine	_	_	-	-	-	-	_	-	-	
	Replace Transformer 110A and 110B Hyundai	-	-	-	-	-	-	-	-	-	
	Replace Network Protector	-	-	-	-	-	-	-	-	-	
	Network Station Fire Support System	-	-	-	-	-	-	-	-	-	
	Neutral Current Relays	-	-	-	-	-	-	-	-	-	
	Purchase Network Spare @ Station 71	-	-	-	-	-	-	-	-	1,135	
	South Rd and Loomis St. Bedford Act of Public Authority	-	-	-	-	-	-	-	-	162	
	Walpole Water Dept New Customer Connect	-	-	-	-	-	-	-	-	-	
	Tunnel Lighting/Vent	-	-	-	-	-	-	-	-	-	
	Increase Capacity River St Line Group Transformer LTC Dielectric Monitors		-	-	-	-	-	-	-	124 60	
	Secondary Network Vault 198 Hanover Street - Boston		-	-		-	-	-	-	-	
	K Street Substation - South Boston	_	-	_	-	_	_	-	_	_	
	Conversion to 13kV, Circuit 23N28X	_	-	-	-	-	_	_	_	55	
	Increase Tie Capacity Station 396	-	-	-	-	-	-	-	-	264	
	Mass Biotech	-	-	-	-	-	-	-	-	-	
	Webster Street Hotel	-	-	-	-	-	-	-	-	-	
	Lexington Station 34 Transformer 14A+14B	-	-	-	-	-	-	-	-	608	
	Establish Secondary Network Vault 505, Boylston Street, Boston Street work	-	-	-	-	-	-	-	-	-	
	Establish Secondary Network Vault 505, Boylston Street, Boston Station work	-	-	-	-	-	-	-	-	-	
	Upgrade Arlington Infrastructure	-	-	-	-	-	-	-	-	-	
	Install new Circuit Relieve 13-01 -24	-	-	-	-	-	-	-	-	120	
	Line Extension to Station 838 Relieve Circuit 488-H1		-	-	-	-	-	-	-	122 404	
	New Circuit to rely 320-H1 - H6		-	-	-	-	-	-	-	620	
	Reconfigure 351-03 351-06	-	-	_	-	-	-	-	-	439	
	Relieve Circuit 17-14	_	-	_	-	-	-	-	_	266	
	Relieve Circuits in the Town of Sharon	-	-	-	-	-	-	-	-	-	
	Reconductor Circuit 65-H1	-	-	-	1	-	-	-	-	-	
	Relieve circuit 211-07	-	-	-		-	-	-	-	-	
	Relieve circuit 316-05	-	-	-	-	-	-	-	-	-	
	Reconductor Underground and Overhead Sections Circuit 36-07	-	-	-	-	-	-	-	-	-	
	Relieve circuit 34-07	-	-	-	-	-	-	-	-	-	
	Relieve circuit 277-03	-	-	-	-	-	-	-	-	-	
	Reconductor Circuit 65-H3 Relieve Circuit 2405	-	-	-	-	-	-	-	-	-	
	Relieve circuit 2405	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 34-01 Relieve Circuit 4-H14 South Boston	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 4-F114 South Boston	-	-		-	-	-	-	-	-	
	Relieve Four 4Kv Circuits in Newton	-	-	-	-	-	-	-	-	-	
	Relieve Station 106 and Transformer Installation	-	-	-	-	-	-	-	-	-	
	Relieve circuit 250-H3	_	-	-	-	-	-	-	_	-	
	Trolleve directi 250-115										

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	200
CCI VICE / II CU	Relieve circuit 467-H1	-	-	-	-	-	-	-	-	-	200
	Relief Circuits in the Town of Millis	-	-	-	-	-	-	-	-	-	1
	Relieve Circuit 13-10	-	-	-	-	-	-	-	-	-	
	Relieve circuit 13N14	-	-	-	-	-	-	-	-	-	
	Install new Elastimold switch circuit 36-09	-	-	-	-	-	-	-	-	-	
	Relieve circuit 467-H8	-	-	-	-	-	-	-	-	-	
	Reconductor 36-20	-	-	-	-	-	-	-	-	ı	
	Relieve circuit 487-1376H1	-	-	-	-	-	-	-	-	1	
	Relieve circuit 211-04	-	-	-	-	-	-	-	-	-	
	Relieve circuit 250-1N81H1	-	-	-	-	-	-	-	-	-	
	Relieve circuit 450-H6 - Phase 1	-	-	-	-	-	-	-	-	1	
	Reconductor Circuit 240-H3	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 20-02 and Improve Voltage Conditions	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 284-07	-	-	-	-	-	-	-	-	-	
	Relieve circuit 34-04	-	-	-	-	-	-	-	-	-	
	Relieve circuit 443-07 and 443-02		-	-	-	-	-	-	-	-	
	Install a total of 70 MVar of distribution capacitors: miscellaneous stations	-	-	-	-	-	-	-	-	-	
	Upgrade North Woburn Station # 375 Install spare on site	-	-	-	-	-	-	-	-	-	
	Establish New Overhead Circuit 342-H6	-	-	-	-	-	-	-	-	-	
	Install nitrogen generators or central nitrogen supply	-	-	-	-	-	-	-	-	-	
	Upgrade protection at LCUs with remote relaying (from the source station) and 4kV	-	-	-	-	-	-	-	-	-	-
	Relieve Boston University Medical Line Group	-	-	-	-	-	-	-	-	-	-
	Reconductor sections of DSS line 329-1N51H	-	-	-	-	-	-	-	-	-	+
	Reconductor sections of DSS line 329-1N40H										-
	Relieve DSS line 250-1N33H Relieve Jamaica Plain Line Group	-	-	-	-	-	-	-	-	-	+
	Relieve DSS line 250-1N90H	-	-		-	-	-	-	-	-	+
	Relieve the Charlestown Line Group	-	-		-	-	-	-	-	-	+
	Relieve DSS line 17-1355 - Phase 2		_			-	-	-	-	-	+
	Reconductor DSS line 548-92H		-		-	-	-	-	-	-	+
	Relieve the Raytheon Line Group		-	-	-	-	-	-	-	_	+
	Relieve the Waltham-2 Line Group		_	_	_	_	-	_	-	_	+
	Relieve Thermal Loading at Station 496	_	-	_	-	_	_	-	-	-	1
	Bridge Crossing DSS lines 506-140H, 233-90H, 36-51		-	_	-	_	-	-	-	-	1
	Distribution Automation Mass Ave	-	-	-	-	-	-	-	-	-	
	Partners Health Care Fruit St.@#55 Boston	-	-	-	-	-	-	-	-	-	
	Improve Voltage Conditions on Dedham Circuits	-	-	-	-	-	-	-	-	-	
	North Washington St. Bridge Conduit	-	-	-	-	-	-	-	-	-	
	Improve Reliability at Summit	-	-	-	-	-	-	-	-	-	
	Establish Secondary Network Vault 597, Fleet St., Boston Street	-	-	-	-	-	-	-	-	-	
	Relieve 13.8kV/4kV Step-down Transformer at Station 26	-	-	-	-	-	-	-	-	-	
	Circuit 211-06 Load Relief	-	-	-	-	-	-	-	-	ı	
	Improve Regulation of Circuit 148-H1	-	-	-	-	-	-	-	-	1	
	System Improvements for Conduit to Convention Center	-	-	-	-	-	-	-	-	-	
	Relieve Stoneham Line Group N-1	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 355-05	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 23-05	-	-	-	-	-	-	-	-	-	
	Relieve Circuit 24-08	-	-	-	-	-	-	-	-	-	
	Establish 329-H2/H5 Tie	-	-	-	-	-	-	-	-	1	
	Distribution Infrastructure Station 106	-	-	-	-	-	-	-	-	-	
	Sudbury Station 342 Replace a Transformer	-	-	-	-	-	-	-	-	-	_
	Install New Transformer Station 375 Street Work	-	-	-	-	-	-	-	-	-	
	Reconductor Network Feeder 71-1N31	-	-	-	-	-	-	-	-	-	-
	Reconductor Network Feeder 492-1N32	-	-	-	-	-	-	-	-	-	+
	Increase 15Kv Dist Capacity, Dorchester	-	-	-	-	-	-	-	-	-	+
	Distribution Automation Somerville	-	-	-	-	-	-	-	-	-	+
	Distribution Automation Waltham	-	-	-	-	-	-	-	-	-	+
	Distribution Automation Walpole	-	-	-	-	-	-	-	-	-	+
	Distribution Automation Framingham Distribution Automation Computer Hardware North	-	-	-	-	-	-	-	-	-	+
		-	-	-	-	-	-	-	-	-	+
	Colburn Street Substation (Distribution Street) Child	-	-	-	-	-	-	-	-	-	+
	Colburn Street Substation (Station) Child	-	-	-	-	-	-	-	-	-	+
	Establish New Network Feeder 53-1N74E MBTA 500 Arborway Boston	-	-	-	-	-	-	-	-	-	+

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Service Area	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	BHA - Lenox St, Roxbury	-	-	-	-	-	-	-	-	-	116
	Academy Homes II - Washington St, Roxbury	-	-	-	-	-	-	1	-	-	194
	One Brigham Circle - 1636 Tremont St, Roxbury	-	-	-	-	-	-	-	-	-	86
	Nazing Apartments - Nazing Ct, Roxbury Merck Company 33 Louis Pasteur Ave, Roxbury	-	-	-	-	-	-	-	-	-	77 88
	Merck Company 33 Louis Fasteur Ave, Noxbury		-				_		-		- 00
	Total Distribution	\$ 67,609	\$ 66,575	\$ 81,647	\$ 70,691	\$ 66,167	\$ 66,196	\$ 66,783	\$ 92,632	\$ 134,373	\$ 127,229
ransmission:											
Various	Install Shunt Reactor at Woburn & K-Street	-	-	-	-	-	-	35	3,116	73	140
Various	Station 446 Sound Reduction - Transformers 345 A&B	-	-	-	-	-	-	- 27	107	32	8,304
Various Various	ANP Station 446 Upgrade / Bellingham Sithe Edgar Interconnection	-	-	-	-	-	-	27	808	-	329
Various	Enhance Downtown Relay		-		-	-	-		140	802	- 329
Various	Reconductor Line 282-507 Station 342 Sudbury to Station 282 Waltham	<u> </u>	-	-	-	-	-	-	1,085	772	(1)
Various	Reconductor Line 282-507 Station 342 Sudbury to Station 282 Waltham	-	-	-	-	-	-	-	68	201	1
Various	Station 456 Relay Upgrade	-	-	-	-	-	-	-	126	-	71
Various	Engineering Special Blackstone #1 Generator	-	-	-	-	-	-	-	563	-	-
Various	Replace Autotransformer at Framingham Station Part 2	-	-	-	-	-	-	-	170	3,957	(115)
Various	Replace Autotransformer at Walpole Station	-	-	-	-	-	-	-	30	2,674	-
Various	Remote Thermal Units Upgrade Stations 446 - Medway, 211 - Woburn	-	-	-	-	-	-	-	117	-	-
Various	Static Wire Work, L320-507 - Waltham & Lexington Structure Replacement, 115 kV line - R/W 8-3 - Lexington & Burlington		-	-	-	-	-	-	209 173	62	-
Various	PG & E Lake Road Interconnection		-	-	-	-	-	-	- 173	- 02	605
Various	ANP Blackstone 446 Worcester	<u>-</u>	-		-		_	-	5,077		-
Various	Replace Transformer 230A	-	-	-	-	-	-	-	67	2,611	-
Various	Install Phase Angle Regulating Transformer 110F - Station 282 Waltham	-	-	-	-	-	-	-	14	710	2
Various	Trans - Develop Station	-	-	-	-	-	-	0	-	-	-
Various	2ND Medway - Millis 345-STA	-	-	-	-	-	-	-	-	-	-
Various	115kv Station - Andrew Sq	1,241	1	-	-	-	-	-	-	-	-
Various	Electric Transmission	-	(1)		-	-	-	-	-	-	-
Various	Replace 115KV BK St	(1)		-	-	3	-	-	-	-	-
Various	Rebuild 240-507/8	-	135	-	2,239	(2)		-	-	-	-
Various Various	Medway-Framingham 115KV Tran Medway-Framingham 115KV Tran	336	450	-	85	0	(61)	-	-		-
Various	Spare Autotransformer		3				-				
Various	Retire Obsolete Equipment - Edgar Station 75	-	21	585	46	100	0	-	-	-	-
Various	Replace Statistics SO TWR	(18)		-	-	-	-	-	-	-	-
Various	Enhance 115K Reliability Part 1	86		-	-	-	-	-	-	-	-
Various	Reinforce Line 240-507&8 Transmission	65		-	-	-	-	-	-	-	-
	Reinforce Line 240-507&8 Station	37		3	-	-	-	-	-	-	-
	Station 150 Replace 115K Dis	(10)		-	-	-	-	-	-	-	-
Various	115KV Supply Concord	17		-	- 4	- (4)	-	-	-	-	-
Various Various	Upgrade Lines 201-501 Install System Transmission		-	-	1	(1)	-	-	-		-
Various	Install Backflow Prevention	1		2	-	-	(1)				-
Various	Trans Sec & Tie Bus	133	-	-	-	-	- (1)	-	-	-	-
Various	Various Station Replace HCR Relay		12	97	10	3	-	-	-	-	-
Various	Install Pothead	10		-	-	-	-	-	-	-	-
Framingham	Replace PLC W/ FOC	128		-	735	292	13	-	-	-	-
Various	Install Transformer Reactors	-	32	-	(255)		0	-	-	-	-
Various	Auto Transformer	-	2,204	-	15		-	-	-	-	-
Various	Replace 115KV Line HOB		105	-	209	0	-	-	-	-	-
Various Various	Station 478 Pru FOC Spare Autotransformer	-	1,889	-	16 5	6	-	-		-	-
Various	Station 126 New 115.14K		130	-	211	2,734	28	-	-		-
Various	On Line monitoring		-	-	93	100	-		-		-
Various	GSU Dissolved Gas	-	-	-	0	-	-	-	-	-	-
Various	Transmission System Line Work	-	-	-	0		-	-	-	-	-
Various	Implement RCM (T)	-	-	-	19	-	-	-	-	-	-
	Station 274 Replace Cable	-	-	-	25	-	-	-	-	-	-
	Milford Trans 479 RE	-	-	205	4		-	-	-	-	-
Various	Milford Trans 479 / Station Work	-	-	-	289	2,009	87	2	(1)	-	-

	Boston Edison										
	2003 ASQR Capital Spending										
	(Dollars in Thousands)										
Contino Aron	DESC	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Service Area Various	Station 385 - Capacitor Bank 115	1994	1995	1990	249	40	1999	2000	2001	2002	2003
Various	Station 509 - Replace Autotransformer		_		101	2,299	130	-		-	
Various	Enhance 115kv Relay	-	-	-	1,069	(18)	-	-	-	-	-
Various	NEPOOL Comm Project	-	-	_	158	12	-	-	-	-	-
Various	Transmission System Line Work	-	-	-	250	2	-	-	-	-	
Various	Transmission System Station Work	-	_	_	56	47	5	-		-	-
Various	Cust Div Buildings	-	-	_	102	1	0	14	-	-	-
Various	Station 240 Replace OCB 3	-	_	_	169	33	-	-	_	-	
Various	Backup to Quincy	-	-	_	22	19	1	-		-	
Various	Replace Relays Station 514T	-	_	_	57	75	2	-	-	-	
Various	Cathodic Protection L#292-522	-	-	_	1	99	3	-		-	
Various	Replace Breakers	-	-	_	- '	1,546	346	16	(2)	(1)	
Various	Replace LDAR Relay	-	_		-	142	0	-	- (2)	- (1)	-
Various	Station 280 Monitoring		_		-	126	3	12		-	
Various	Station 250 Monitoring	-	-		-	60	60	-		-	
		-				124	141			-	
Various Various	Digital Transient Recorder Install Oil Containment	-	-	-	-	300	90	(10)	-	- 11	4
Various		-	-	-	-	82	20		-	- 11	
Various	Upgrade System Monitoring							- 1			
Various	Enhance 115kv Relay	-	-	-	-	1,543	330	1	-	-	
Various	Station 509 Replace 345B	-	-	-	-		2,286	36	-	-	
Various	Replace Breaker 102 - Station 446	-	-	-	-	5	1	0	454	-	
Various	Relaying Station	-	-	-	-	1,371	1,245	159	31	(19)	
Various	Transmission System Line Work	-	-	-	-	139	7	-	-	-	
Various	Transmission System Station Work	-	-	-	-	128	51	-	-	-	
Various	Preliminary Authorization - Transmission	-	-	-	-	25	176	91	-	-	
Various	Edgar Station	-	-	-	-	-	28	4	-	-	
Various	Station Breaker Transformer	-	-	-	-	20	3	3	-	-	
	Transmission Overheads	-	-	-	-	-	-	-	-	-	
Various	Station 211 250	-	-	-	-	-	2,489	487	44	3	
Various	2nd Mystic to King	-	-	-	-	-	31	3,611	(287)	1,549	
Various	Station 514 TR 345B	-	-	-	-	-	1,313	4,756	126	-	
Various	New 345kv Line 324	-	-	-	-	-	235	4,951	317	(1,553)	
Various	115KV Shunt Reactor	-	-	-	-	-	13	1,383	62	2	
Various	ANP-Breakers at 446	-	-	-	-	-	104	833	246	(7)	
Various	ANP-Reconductor Line 336	-	-	-	-	-	54	181	161	-	
Various	ANP Reconductor 336 & New Tap	-	-	-	-	-	1,308	3,650	(46)	(32)	
Various	NEP 115kv Backup	-	-	-	-	-	2,043	886	318	-	
Various	Upgrade 240-510, Station 110, 148	-	-	-	-	-	1	204	147	326	
Various	New 345kv Line 324	-	-	-	-	- 1	4	1,464	32	-	
Various	NEP 115kv Backup	-	-	-	-	- 1	16	862	-	-	
Various	Upgrade 240-510, Lines Station 240 to 1	-	-	-	-	-	9	963	2,673	(129)	
Various	Upgrade 148-522, Station 447 to 148	-	-	-	-	-	169	1,208	942	<u>`</u> 1	
Various	Upgrade Line 148-522, Sta. Worl	-	-	-	-	-	-	872	53	24	
Various	Sithe Mystic Interconnection- Lines	-	-	-	-	-	-	0	3	-	
Various	Sithe Mystic Interconnection - Station	-	-	-	-	-	-	1	420	-	
Various	Interconnection Agreement Generation	-	-	-	-	-	-	3	-	-	
Various	Transmission Line LOB	_	-	_	-	-	84	393	265	770	
Various	Transmission Station LOB	-	-	-	-	-	272	84	173	404	
	Engineering Transmission Line	-	-	-	-	-	-	- 1	-	-	
Various	Transmission Lines	_	-	_	-	-	_	-	13	-	
V 41.1040	Sherborn Station Breaker Replacement	-	-	-	-	-	_	-		175	
	Upgrade 342-507 Line		_		-	-		-		40	18,
	Upgrade 240-601 Line	-	-	-	-	-	-	-	-	218	10,
	Upgrade Line 433-507	_	-	_	-	-	-	-	-	2	
	Upgrade Line 453-567 Upgrade Line 282-602	-	-	-	-	-	-	-	-	649	(
	Upgrade Relays Line 319	-	-	-	-	-	-	-	-	110	
	Woburn Industrialplex	-	-	-	-	-	-	-	-	-	
	DTR Station #329	-	-	-	-	-	-	-	-	108	
	Station 110 Replace Circuit Switches 115kv	-	-	-	-	-	-	-	-	108	4,
	Relocate Lines 250-516 & 517 MBTA										4,
		-	-	-	-	-	-	-	-	-	
	Upgrade 4 -345 kV circuit breakers at Walpole Station #447 Dewar-Quincy Load Transfer								-	-	
		-	-	-	-	-	-	-	-	-	
Voburn	Upgrade 342, 433 breakers Replace ATB circuit breakers due to wear, tear and obsolescence at Station 211	-	-	-	-	-	-	-	-	-	1

	Boston Edison																
	2003 ASQR Capital Spending																
	(Dollars in Thousands)																
Service Area	DESC	1994	1	995	1996	19	997	19	998	19	999	2	2000	2	2001	2002	2003
	Upgrade 385-510/511 (Kingston St-High St-K Street 115 kV lines)	-		-	-		-		-		-		-		-	-	559
	Various replace 115kV OCB	-		-	-		-		-		-		-		-	-	4
	12 disconnect switches and Installation	-		-	-		-		-		-		-		-	-	122
	One 345 KV breakers (System Spares)	-			-		-		-		-		-		-	-	58
	4 115 KV circuit switchers	-		-	-		-		-		-		-		-	-	17
	Purchase 345Kv Breakers	-			-		-		-		-		-		-	-	54
	Sithe Edgar Interconnection	-			-		-		-		-		-		-	8,904	-
	Mirant Kendall	-		-	-		-		-		-		-		-	1,158	21
	Sithe Mystic Interconnection	-			-		-		-		-		-		-	8,226	-
	Sithe Mystic Interconnection	-		-	-		-		-		-		-		-	12,428	-
	Total Transmission	\$ 2,025	\$	5,677	\$ 892	\$	5,984	\$ 1	13,468	\$	13,147	\$	27,180	\$	18,025	\$ 45,457	\$ 38,566
	Meters	\$ 4,785	\$	4,480	\$ 521	\$	4,414	\$	1,325	\$	10,871	\$	1,828	\$	2,172	\$ 6,364	\$ 6,842
	Overheads	\$ 30,455	\$	28,723	\$ 10,821	\$	10,248	\$ 1	11,945	\$	16,118	\$	12,595	\$	19,427	\$ 30,196	\$ 28,378
					 				Ĺ						,	,	
	Total Capital Spending	\$ 104,874	\$ 1	05,455	\$ 93,881	\$:	91,337	\$ 9	92,905	\$ 1	06,332	\$	108,387	\$	132,256	\$ 216,390	\$ 201,015
	2002 includes \$30M of interconnection capital. Payment to be made in 2003.																
	Charge for Blackstone transformer removed from 2001.																-
	*** 2003 Combined all Technical Support work orders ***																

Spare Component Acquisition & Inventory Policy and Practice

Year Ending December 31, 2003



Boston Edison Company Spare Parts Policy and Practices

Boston Edison Company ("Boston Edison" or the "Company") monitors and manages critical items for its electric transmission system using a state—of-the—art computerized and integrated work management and inventory-control/procurement system. This system was installed in 1999-2000, and provides for identification of common items needed for Boston Edison, as well as the operating systems of all of the NSTAR Companies (i.e., Boston Edison, Cambridge Electric Light Company, Commonwealth Electric Company and NSTAR Gas Company) (together the "NSTAR Companies"). In addition, Boston Edison's system inventories have been decentralized to bring materials closer to their point of use, decreasing spare-part requirements. Spare part requirements are periodically reviewed and updated by the Company to create efficiencies among and between the NSTAR Companies.

I. Electric Distribution System Spare Parts

The components of Boston Edison's distribution system are, for the most part, lower-cost and high-use items. Inventory levels are based on predicted numbers of: (1) replacements due to failure; (2) replacements due to wear, tear and obsolescence; and (3) new construction needs. Higher-cost, less-frequent turnover items, such as pad-mount switches, transformers, tapping and stopping equipment and regulators, are inventoried based on the same requirements.

In recent years, The NSTAR Companies have formed alliances with vendors of high-use items such as gas parts, distribution transformers, cable and overhead hardware. These alliances have proven very effective in assuring a continuous flow of high-quality components at a controlled price, as well as giving the NSTAR Companies priority treatment for emergency deliveries to cover natural disasters, which have the potential to drastically impact the system. In 2003 NSTAR reevaluated their cable alliance, distribution transformer alliance and poleline hardware alliance securing service commitments and stable pricing for the next 2-3 years. Additional commodities are being evaluated in 2004.

II. Electric Transmission and Distribution Substation & Gas Take Station Spare Parts

Components at the substation level are much higher in cost, but much lower in number. The turnover of these components and the parts associated with them is also very low. Historically, there was a substantial inventory of substation spare parts, with very high carrying costs. Based on alternative methods for obtaining replacement parts, spare parts inventories were reviewed by Boston Edison, and as a result, substantially reduced.

Boston Edison has identified the following alternatives to maintaining a substantial inventory of spare parts:

- Establishing relationships with suppliers who maintain inventories of spare parts that can be obtained by Boston Edison on very short notice, as described above.
- Utilizing equipment on the Boston Edison system, which has been recently replaced or upgraded, for use as spare parts. Because of the large number of Boston Edison's ongoing projects, this option would provide a fairly continuous supply of spare parts.
- o Maintaining relationships with utilities that utilize similar equipment.
- o Employing the use of rebuilding kits.
- o Promoting redundancy in design and parallel feeds throughout the Boston Edison system to reduce the need for major component inventories.

For large critical components, dedicated spares are kept and replaced as used by Boston Edison. Specifically, the Company maintains a mobile transformer and mobile substations that can be placed in service in a very short time for emergency replacement of a major component.

Poor Performing Circuits

Year Ending December 31, 2003



Boston Edis	son Company				
Circuit ID	Location	Reason(s) for performance	Number of years performed poorly	Steps taken to improve performance	2003 SAIDI
506-09	Brookline	The majority of the outages were caused by a cable failure on the line supplying this circuit, ug cable faults and an underground transformer failure.	2	2004 – Infrared survey scheduled. 2003 – Replaced multiple sections of feeder cable. Retrofitted switches on the circuit so they could be operated without taking an outage. Infrared survey and repairs completed. 2002 – Reconfigured circuit to reduce circuit loading. Installed new underground loadbreak switch. Circuit tree trimmed and infrared survey and repairs completed.	749.59
293-04	South Boston	The majority of the outages on this circuit were caused by cable failures, a transformer failure, a cable failure on the supply line, and a pole hit by auto.	2	2003 – A portion of the circuit was converted to 13.8kV circuit with all new cable and transformers. Two underground automatic sectionalizing switches were installed.	502.54
362-02	Milton	The majority of the outages on this circuit were caused by tree interference and overhead equipment failures.	2	2004 – Infrared survey scheduled. 2003 – Circuit tree trimmed and infrared survey and repairs completed.	285.33
211-H5	Woburn	The majority of the outages on this circuit were caused by squirrels, lighting, trees, and overhead equipment failures.	2	2004 – Infrared survey scheduled. 2003- overhead radio controlled sectionalizing units installed, infrared survey and repairs completed, circuit walked down and equipment repairs/upgrades completed, additional lightning protection added, new connectors installed on main line and additional animal protection installed. 2002 – Circuit tree trimmed.	300.35
321-05	Dorchester	The majority of the outages on this circuit were caused by cable failures and a switch failure.	2	2004 - Sections of the circuit are scheduled to be converted to 13.8kV with new cable and transformers installed.	348.22

Circuit ID	Location	Reason(s) for performance	Number of years performed	Steps taken to improve performance	2003 SAIDI
		performance	performed	improve performance	OAIDI
396-06	Brighton, Jamaica Plain	The majority of the outages on this circuit were caused by cable failures on the supply lines and transformer failures.	2	2004 - Sections of the circuit are scheduled to be converted to 13.8kV with new cable and transformers installed. 2003/2004 - Supply lines tested and several sections and splices replaced.	315.64
375-H9	Woburn	The majority of the outages on this circuit were caused by a switch failure due to squirrel, lightning, and station equipment problems.	2	2004 – Infrared survey scheduled. 2003 - Station equipment upgrades completed including installation of new transformer, cables and moisture protection. Overhead radio controlled sectionalizing switches installed. Additional lightning protection added. Infrared survey and repairs completed. 2002 – Circuit tree trimmed.	384.07
466-1482H1	Dorchester	The majority of the outages on this circuit were caused by cable dig-ins by others and outages due to station equipment failures.	2	2004 – Station transformer cables scheduled for replacement. Infrared survey scheduled for station equipment and circuit. 2003 – Infrared survey and repairs completed at station on circuit. Station inspection and repairs completed.	423.21
355-03	Maynard	The majority of the outages on this circuit were caused by cable failures and tree interference.	2	2004 - Tree trimming and infrared survey scheduled. 2003 – Infrared survey and repairs completed.	258.57
483-08	Dorchester	The majority of the outages on this circuit were caused by cable and joint failures and loss of supply due to station equipment failures.	2	2004 – Station transformer cables scheduled for replacement. Infrared survey scheduled for station equipment and overhead sections of circuit. 2003 - Infrared survey and repairs completed at station and on circuit. Station inspection and repairs completed.	417.97

Boston Edis	son Company				
Circuit ID	Location	Reason(s) for performance	Number of years performed poorly	Steps taken to improve performance	2003 SAIDI
375-H6	Woburn, Burlington	The majority of the outages on this circuit were caused by squirrels, lighting, station equipment problems, poles struck by autos and tree interference.	4	2004 – Infrared survey scheduled. 2003 - Station equipment upgrades completed including installation of new transformer, cables and moisture protection. Overhead radio controlled sectionalizing switches installed, circuit walked down and equipment repairs/upgrades completed, additional lightning protection added, new connectors installed on main line and additional animal protection installed. Tree trimming and infrared survey also completed.	104.26
17-H2	Newton	The majority of the outages on this circuit were caused by a recloser failure and squirrels.	2	2004 – Scheduled for tree trimming and infrared survey 2003 - Recloser replaced, infrared survey and repairs completed.	224.98
65-1325H1	Framingham, Ashland	The majority of the outages on this circuit were caused by recloser problems, connector failures and tree interference.	2	2004 – Infrared survey scheduled. 2003 - Recloser and control box replaced, overhead radio controlled sectionalizing switches installed, circuit tree trimmed, infrared survey and repairs completed.	45.58
433-H11	Natick	The majority of the outages on this circuit were caused by squirrels and tree interference.	2	2004 – Tree trimming and infrared survey scheduled. 2003 – Overhead radio controlled sectionalizing switches installed, infrared survey and repairs completed.	104.62
396-08	Roxbury	The majority of the outages on this circuit were caused by cable failures on the supply lines and transformer failures and joint failures.	4	2003/2004 – The majority of the circuit was converted to 13.8kV with new cables and transformers installed. The supply lines were tested and several sections and splices were replaced.	986.62

Boston Edis	son Company				
Circuit ID	Location	Reason(s) for performance	Number of years performed poorly	Steps taken to improve performance	2003 SAIDI
375-H2	Stoneham	The majority of the outages on this circuit were caused by station equipment problems, squirrels and overhead connector failures.	2	2003 – Station equipment upgrades completed including installation of new transformer, cables and moisture protection. Circuit tree trimmed and infrared survey and repairs were completed.	141.95
375-H1	Woburn	The majority of the outages on this circuit were caused by station equipment problems and poles struck by autos.	2	2004 – Tree trimming and infrared survey scheduled. 2003 – Station equipment upgrades completed including installation of new transformer, cables and moisture protection. Infrared survey and repairs completed.	214.50
240-H5	Natick, Dover	The majority of the outages on this circuit were caused by tree interference and overhead equipment failures.	2	2004 – Second ½ of circuit scheduled to be walked down and equipment repairs/upgrades made including adding additional lightning protection, animal protection and replacing main line connectors. Infrared survey also scheduled. 2003 – Circuit tree trimmed and infrared survey and repairs completed. Overhead radio controlled sectionalizing switches installed. ½ of circuit walked down and equipment repairs/upgrades completed, additional lightning protection added, new connectors installed on main line and additional animal protection installed. Infrared survey and repairs completed.	98.89
284-08	Jamaica Plain	Majority of outages were caused by joint failures and poles struck by autos.	2	2003 – Overhead section of circuit walked down and repairs made as necessary. 2002 – 30% of circuit converted to 13.8kV with new cable and transformers installed.	203.40

Boston Edison Company										
Circuit ID	Location	Reason(s) for performance	Number of years performed poorly	Steps taken to improve performance	2003 SAIDI					
292-Н8	Newton	The majority of the outages on this circuit were caused by overhead equipment failures, squirrels and tree interference	2	2003 - overhead radio controlled sectionalizing switches installed, circuit walked down and equipment repairs/upgrades completed, additional lightning protection added, new connectors installed on main line and additional animal protection installed. Infrared survey and repairs also completed. 2002 - Circuit tree trimmed.	222.37					

Staffing Levels

Year Ending December 31, 2003



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STAFFING - TRANSMISSION AND DISTRIBUTION OPERATIONS

	1997	1998	1999	2000	2001	2002	2003
Boston Edison Company							
Union	1,693	1,648	1,406				
Management	681	667	649				
NSTAR Electric & Gas							
Union				2,264	2,272	2,324	2,232
Management				919	914	889	855

Note 1: From 1998 to 1999 and 1999 to 2000 the Company offered a voluntary separation program offered as part of the merger with Commonwealth Energy System. During the period from August 1999 through August 2000, 635 employees from the Boston Edison and Commonwealth Energy System elected to participate in this program and exited the merged company. This was a program that was negotiated with the union leadership. Under the program, approximately 300 union and 335 management employees terminated their employment.

Note 2: With the merger of BEC Energy and Commonwealth Energy System into NSTAR Electric and Gas and resulting consolidation of operations, employees are no longer catagorized by or assigned to positions on the basis of the pre-merger operating company designations.

Boston Edison Company 2004 Performance Benchmarks



Boston Edison Company 2004 Performance Benchmarks

	Percent	Percent	Percent	Lost			Consumer	
	Calls	Service	On-Cycle	Work Day			Division	Billing
<u>Year</u>	<u>Answered</u>	Appt. Met	Meter Reads	<u>Accidents</u>	<u>SAIDI</u>	<u>SAIFI</u>	<u>Cases</u>	<u>Adjustments</u>
	(1)				(2)	(2)		
1992				1.16			1.803	177.26
1993				0.87			1.742	282.04
1994				1.10			1.608	304.48
1995	59.78%			1.37			1.478	342.21
1996	46.16%		84.92%	0.98			1.523	169.44
1997	79.98%		90.23%	0.77	100.40	1.070	1.776	255.71
1998	72.74%		92.46%	0.50	86.31	0.896	1.097	266.33
1999	69.20%		94.73%	0.73	101.21	1.060	1.087	206.88
2000	56.68%		94.81%	0.96	100.33	1.171	0.996	123.80
2001	57.11%		83.49%	0.76	146.77	1.330	2.292	114.75
2002	76.04%	88.30%	92.92%					
2003	76.72%	86.36%	94.08%					
Mean	66.05%		90.96%	0.92	107.00	1.105	1.540	224.29
Std. Dev.	11.54%		4.43%	0.25	23.08	0.160	0.400	77.49
Max. Penalty	42.97%		82.09%	1.42	153.17	1.425	2.339	379.28
25% Penalty	54.51%		86.52%	1.17	130.09	1.265	1.940	301.78
25% Offset	77.58%		95.39%	0.67	83.92	0.946	1.141	146.80
Max. Offset	89.12%		99.82%	0.42	60.84	0.786	0.741	69.30

Notes (1) Based on 20 second threshold; includes abandoned calls.

⁽²⁾ Exclusions based on events affecting 15% of operating areas